

Appendix 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND THE UNITED STATES DEPARTMENT OF JUSTICE

IN THE MATTER OF:
BUNKER HILL SUPERFUND SITE
KELLOGG, IDAHO

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) U.S. EPA Region 10
) CERCLA Docket No. 10-2017-0123
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SETTLEMENT AGREEMENT AND
ORDER ON CONSENT FOR RESPONSE
ACTION BY BUNKER HILL MINING
CORP., PURCHASER, UNDER THE
COMPREHENSIVE ENVIRONMENTAL
RESPONSE, COMPENSATION AND
LIABILITY ACT, 42 U.S.C. §§ 9601-9675

) In re: BUNKER HILL MINING CORP.
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I. INTRODUCTION

1. This Settlement Agreement and Order on Consent for Response Action by Bunker Hill Mining Corp. ("Settlement Agreement") is voluntarily entered into by and between the United States, on behalf of the Environmental Protection Agency ("EPA"), and Bunker Hill Mining Corp. ("Purchaser"). As described in this Settlement Agreement, Purchaser agrees to perform a response action at or in connection with the property located at the Bunker Hill Mine, south of Kellogg, in the Silver Valley of Shoshone County, Idaho (the "Mine"), which is located in and part of the "Non-Populated Areas Operable Unit of the Bunker Hill Superfund Site" or the "Site," and to make payments for, and in partial or total satisfaction of the liability of Placer Mining Corp. and the Estate of Robert Hopper, relating to the Mine, under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9601 – 9675, as provided below.

II. JURISDICTION AND GENERAL PROVISIONS

2. This Settlement Agreement is issued pursuant to the authority of the Attorney General to compromise and settle claims of the United States, and the authority vested in the President of the United States by CERCLA, and delegated to the Administrator of EPA by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987).

3. The Parties agree that the United States District Court for the District of Idaho will have jurisdiction pursuant to Section 113(b) of CERCLA, 42 U.S.C. § 9613(b), for any enforcement action brought with respect to this Settlement Agreement.

4. EPA has notified the State of Idaho (the "State") of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

5. In view of the complex nature and significant extent of the work to be performed in connection with the response actions at the Mine and the Site, and the risk of claims under CERCLA being asserted against Purchaser as a consequence of Purchaser's activities at the Site pursuant to this Settlement Agreement, one of the purposes of this Settlement Agreement is to resolve, subject to the reservations and limitations contained in Section XVIII ("Reservations of Rights by United States"), any potential liability of Purchaser under CERCLA for the Existing Contamination and Work as defined by Paragraph 10.

6. The resolution of this potential liability in exchange for Purchaser's performance of the Work and payments made in accordance with Paragraph 40 of this Agreement, is in the public interest.

7. The United States and Purchaser recognize that this Settlement Agreement has been negotiated in good faith. Purchaser agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms.

III. PARTIES BOUND

8. This Settlement Agreement applies to and is binding upon the United States and upon Purchaser and its successors and assigns. Any change in ownership or corporate status of Purchaser including, but not limited to, any transfer of assets or real or personal property shall not alter Purchaser's responsibilities under this Settlement Agreement.

9. Purchaser shall ensure that its contractors, subcontractors, and representatives comply with this Settlement Agreement, and, where appropriate, receive a copy of this Settlement Agreement. Purchaser shall be responsible for any noncompliance with this Settlement Agreement.

IV. DEFINITIONS

10. Unless otherwise expressly provided herein, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations, including any amendments thereto.

"Bunker Hill Mine" or the "Mine" shall mean that portion of the Site located at the Bunker Hill Mine, south of Kellogg, in the Silver Valley of Shoshone County, Idaho, which is described in the Lease Agreement and Option to Purchase ("Lease") attached hereto as Appendix 1, and that certain parcel not being listed in the Lease but that is an integral part of the Mine as more particularly described in Appendix 2.

"Bunker Hill Mining and Metallurgical Complex Special Account" shall mean the special account, within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

"Day" or "day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

"Effective Date" shall mean the effective date of this Settlement Agreement as provided in Section XXVI.

"EPA" shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

"EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

"Existing Contamination" shall mean any hazardous substances, pollutants or contaminants that migrated from the Mine prior to the Effective Date.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <http://www2.epa.gov/superfund/superfund-interest-rates>.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Paragraph” shall mean a portion of this Settlement Agreement identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean the United States and Purchaser.

“Purchaser” or “Lessee” shall mean Bunker Hill Mining Corp., formerly Liberty Silver Corp., a Nevada Corporation, including any subsidiary entities.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“RPM” shall mean the Remedial Project Manager as defined in 40 C.F.R. § 300.5.

“Section” shall mean a portion of this Settlement Agreement identified by a Roman numeral.

“Settlement Agreement” shall mean this Settlement Agreement and Order on Consent for Response Action by Bunker Hill Mining Corp. (“Agreement”) and all appendices attached hereto (listed in Section XXIV). In the event of conflict between this Settlement Agreement and any Attachment, this Settlement Agreement shall control.

“Site” shall mean the Bunker Hill Mining and Metallurgical Superfund Site (the “Site”) encompassing approximately 21 square miles along Interstate 90 in the Silver Valley area of Northern Idaho, located in Shoshone County, Idaho, and depicted generally on the map attached as Appendix 3. The Site shall include the Mine, and all areas to which hazardous substances and/or pollutants or contaminants have been deposited, stored, disposed of, placed, or otherwise come to be located.

“State” shall mean the State of Idaho.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any “solid waste” under Section 1004(27) of RCRA,

42 U.S.C. § 6903(27); and (d) any “hazardous waste” under Section 39-4403(8) of the Idaho Hazardous Waste Management Act of 1983.

“Work” shall mean all activities and obligations Purchaser is required to perform under this Settlement Agreement except those required by Section XIII (Record Retention, Documentation and Availability of Information).

V. FINDINGS OF FACT

11. The Purchaser is Bunker Hill Mining Corp., formerly Liberty Silver Corporation.

12. The Mine is currently owned by Placer Mining Corporation (“PMC”).

13. On August 17, 2017, the Purchaser and PMC entered into a Mining Lease with Option to Purchase (“Lease”). The Lease became effective December 1, 2017 and the term of the Lease is two years from the effective date. The Lease provides that the Purchaser will operate the Bunker Hill Mine and make certain improvements on the Mine along with making payments to PMC over the term of the Lease. Pursuant to the Lease, the Purchaser has the exclusive right to purchase the Bunker Hill Mine during the lease term upon notice to PMC and the United States. Consummation of the purchase of the Mine is conditioned on, among other things, reaching agreement with the United States regarding potential environmental liabilities arising from the purchase of the Mine. The Lease is attached as Appendix 1 hereto.

14. Purchaser intends to increase operations and increase the number of individuals employed at the Mine. This increase in employment would not occur absent the Lease and purchase of the Mine by the Purchaser.

15. The Mine is located south of Kellogg, in the Silver Valley of Shoshone County, Idaho within the Bunker Hill Mining and Metallurgical Superfund Site (the “Site”). The Site includes residential communities, industrial areas, and non-populated areas.

16. Environmental contamination of surface water, groundwater, soil, and sediment occurred at the Site as a result of mining, milling, and smelting operations in the Silver Valley, including but not limited to, at the Bunker Hill Mining and Metallurgical Complex (“Complex”), of which the Mine was a part. Operations at the Complex started in 1885 and continued through the 1980s, and included an integrated system of mining, milling, and smelting. Prior to 1928, liquid and solid waste from the Complex was discharged directly into the South Fork of the Coeur d’Alene River and its tributaries. Following 1928, waste from the Complex was directed to a nearby floodplain where a Central Impoundment Area (“CIA”) was developed. Acid mine drainage (“AMD”) and wastewater from the Complex were discharged to a settling pond in the CIA. In 1974, a Central Treatment Plant (“CTP”) was built by the Bunker Hill Mining Company, the owner and operator of the Complex at the time. AMD and wastewater from the Complex were stored in an unlined pond in the CIA before being decanted to the CTP. In 1981, following the closure of the smelter, the CIA was no longer required to impound wastewater from the Complex, although surface runoff from the Complex and AMD from the Mine were still routed to the CIA prior to treatment at the CTP. Sludge which formed during the treatment process was also disposed in unlined ponds at the CIA.

17. Ownership of the Complex passed through a number of companies throughout the 100-year operation of the Complex. In early 1991, the Bunker Limited Partnership, then owner of the Complex and operator of the CTP, closed the Mine and filed for bankruptcy. In late 1991 and 1992, PMC purchased a portion of the Site, which includes underground workings, mineral rights, and much of the land surface above the Mine, from Bunker Limited Partnership. PMC did not purchase the entire Complex nor the CTP. In November 1994, federal and State governments assumed operation of the CTP for ongoing treatment of AMD.

18. AMD is a result of acid-forming reactions occurring within the Mine among water, oxygen, sulfide minerals (especially pyrite), and bacteria. AMD is acidic with typical pH levels between 2.5 and 3.5, and it contains high levels of dissolved and suspended heavy metals. For human receptors, the constituents of primary concern at the Site found in the AMD are arsenic, cadmium, lead, mercury, and thallium, and for aquatic and terrestrial receptors they are aluminum, arsenic, cadmium, copper, iron, lead, manganese, mercury, selenium, silver, and zinc. Impacts on human health from exposure to these constituents include carcinogenic effects, skin lesions, neuropathy, gastrointestinal irritation, kidney damage, interference with metabolism, and interference with the normal functioning of the central nervous system. Impacts on the environment from exposure to these constituents include significant mortality of fish and invertebrate species, elevated concentrations of metals in the tissues of fish, invertebrates, and plants, and reduced growth and reproduction of aquatic life.

19. AMD is generated and discharged from the Mine continuously. AMD from the Mine is drained through the Kellogg Tunnel portal and then passes through a conveyance system to the CTP for treatment. Average AMD discharge from the Mine during typical flow periods is approximately 1300 gallons per minute. During high flow periods AMD may be diverted to a lined surface impoundment on the Site, where it mixes with other minimal wastewater streams from the Mine. From the impoundment, it is pumped to the CTP for treatment. If not collected and treated at the CTP, AMD from the Mine would flow downhill through the mine yard, across properties where public and environmental exposures would occur, and into Bunker Creek and the South Fork Coeur d'Alene River where it would have significant detrimental effects on water quality and the ecosystem.

20. Initially, the Bunker Hill Superfund Site was divided into two operable units, the Populated Areas and the Non-Populated Areas, in order to focus investigation and cleanup efforts. A Record of Decision ("ROD") for the Non-Populated Areas Operable Unit was signed on September 22, 1992. A ROD Amendment for the Non-Populated Areas Operable Unit, addressing the management of AMD was issued in December 2001. A third operable unit was created to address contamination in the Coeur d'Alene Basin, and a ROD for Operable Unit 3, the Coeur d'Alene Basin, was issued in 2002.

21. In 1994, EPA issued a unilateral administrative order ("UAO") to PMC directing PMC to keep the mine pool pumped to an elevation below the level of the South Fork Coeur d'Alene River (at or below Level 11 of the Mine) to prevent discharges to the river, to convey mine water to the CTP for treatment unless an alternative form of treatment was approved, and to provide for emergency mine water storage within the mine. In 2017, EPA issued a UAO to PMC directing PMC to control mine water flows to the CTP during needed upgrades at the CTP and in high flow periods, to conduct operation and maintenance of the Reed Landing Flood Control

Project, to file an environmental covenant on a portion of the Mine property regarding access and operation and maintenance, and allowing PMC to fill the mine pool to Level 10 during diversion events.

22. Response actions required by the 1994 and 2017 UAOs are currently being performed by PMC. Upon the later of the Effective Date of this Settlement Agreement or the Consent Decree resolving the United States' pending CERCLA claims against PMC and the Estate of Robert Hopper, Sr., EPA will withdraw the 1994 and 2017 UAOs. To the extent that aspects of those UAOs require ongoing work, Purchaser agrees to perform such work when Purchaser becomes the operator of the Mine, and to continue to perform such work when Purchaser becomes the owner upon subsequent purchase of the Mine. Ongoing work requirements are described in detail in Section IX (Work to be Performed) below.

VI. DETERMINATIONS

23. Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

a. The Mine is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contaminants found at and released from the Mine, as identified in the Findings of Fact above, include "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Purchaser is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. The conditions described in Paragraphs 18-19 of the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

e. The Work is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement Agreement, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VII. SETTLEMENT AGREEMENT

24. In consideration of and in exchange for the United States' Covenant Not to Sue in Section XVI Purchaser agrees to comply with all provisions of this Settlement Agreement, including, but not limited to, all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VIII. DESIGNATION AND AUTHORITY OF EPA PROJECT MANAGER

25. EPA has designated Ed Moreen of the Office of Environmental Cleanup, Region 10, as its Project Manager (PM). EPA shall have the right to change its designated PM. EPA intends to notify Purchaser within 30 days of such change.

26. The PM shall be responsible for overseeing Purchaser's implementation of this Settlement Agreement. The PM shall have the authority to halt, conduct, or direct any Work required by this Settlement Agreement, or to direct any other response action undertaken at the Site. Absence of the PM from the Site shall not be cause for stoppage of work unless specifically directed by the PM.

IX. WORK TO BE PERFORMED

27. Purchaser's Project Coordinator. Within 10 days of the Effective Date of this Settlement Agreement, Purchaser shall identify a Project Coordinator who shall be available daily via email and phone, and act as the Project Coordinator on behalf of the Purchaser for the duration of the Work to be Performed. Purchaser may change its Project Coordinator with written notice to the RPM at least 15 days prior to such change.

28. Purchaser shall perform, at a minimum, all actions necessary to manage AMD as directed by EPA so as to allow necessary maintenance of and upgrades to the CTP and to avoid damaging or overwhelming the CTP, as described below in Paragraphs 29 through 34 (these actions, collectively, are the "Work to be Performed" by the Purchaser under this Settlement Agreement).

29. In-Mine Diversion System and Mine Pool. Purchaser shall construct an In-Mine Diversion System and manage the mine pool such that diverted flows of Mine Waters, as defined in Paragraph 29.a, will be stored within the mine or discharged at a controlled rate, and not result in uncontrolled discharge to the environment. The following criteria describe the performance criteria to be met.

- a. Mine Waters to be Stored: Waters to be stored by Purchaser include all mine water which originate upstream of the Barney Switch within the mine, including the east side (Milo) gravity flows, the west side (Deadwood) gravity flows, and the lower country (Mine Pool) pumped flows.
- b. Mine Pool Storage Volume: Purchaser shall provide storage volume using all void space (the mine workings) from a minimum of 30 feet below the sill of 11 Level at the No. 2 Raise to the sill of 10 Level at the No. 2 Raise.
- c. In-Mine Diversion System Construction: Purchaser shall construct a diversion dam system in the Kellogg Tunnel just downstream from the Barney Switch which backs up all Mine Waters into the Barney Vent Raise or other appropriate and approved location. The system shall have the capability to divert a minimum of 7,000 gallons per minute.
- d. In-Mine Diversion System Activation: Purchaser shall activate the In-Mine Diversion System under the following circumstances:
 - (1) For initial compliance inspection: Within 70 days of the Effective Date of this Settlement Agreement, for a duration to be determined and requested by EPA during the initial compliance inspection;

- (2) For emergencies: Within 4 hours of notification from EPA, for a duration to be determined and requested by EPA based on the emergency situation, which may occur at any time; and
 - (3) For CTP or Conveyance Line Maintenance: Within 14 days of notification from EPA, for a duration to be determined and requested by EPA based on the maintenance required.
- e. In-Mine Diversion System Operation and Maintenance: Purchaser shall maintain and operate the In-Mine Diversion System until notification from EPA that the system may be decommissioned and removed, in accordance with the following:
- (1) The amount of In-Mine Diversion System building materials continuously kept at the diversion structure location shall be sufficient to divert all flows as required by Paragraph 29.a, and to construct the diversion dam to provide the storage capacity required in Paragraph 29.c.
 - (2) The diversion dam structure, location as described in Paragraph 29.c, and adjoining ditches, are to be kept serviceable and in operable condition at all times for diversion dam construction, operation, and maintenance.
 - (3) The entire In-Mine Diversion conveyance system (e.g. Barney Vent Raise or other appropriate and approved location) shall be inspected a minimum of twice per year, and more frequently if there are concerns regarding its ability to convey the capacity required in Paragraph 29.c. Purchaser shall develop and maintain a written report of each inspection, and shall provide it to EPA upon request.
 - (4) The In-Mine Diversion conveyance system shall be cleaned, by hydraulic flushing or other means as necessary, at least once per year, and more frequently if needed to provide the capacity required in Paragraph 29.c. Purchaser shall inform EPA within 7 days of completing each cleaning.
 - (5) Written diversion dam construction procedures and In-Mine Diversion System operation and maintenance procedures are to be developed and posted near the diversion dam structure location within 70 days of the Effective Date of this Settlement Agreement which provide sufficient detail for diversion dam construction, and system operation and maintenance by all crew members. The written diversion dam construction procedures and system operation and maintenance procedures shall be periodically updated as needed. Purchaser shall provide the written procedures to EPA upon request.

- (6) Diversion dam construction procedures and system operation and maintenance procedures required by Paragraph 29.e(5) shall be periodically practiced, at least once per year, or more frequently as needed to ensure the required diversion response time can be met. Purchaser shall inform EPA a minimum of 7 days prior to each diversion dam construction practice.

30. Kellogg Portal Contingency Diversion System. Purchaser shall obtain and store a sufficient quantity of sand bags or other appropriate materials near the entrance to the Kellogg Tunnel with the designated purpose of containing, damming, and/or rerouting any flows into the Kellogg Tunnel ditch, in order to prevent any overland flow outside the ditch.

- a. Waters to be diverted: All mine waters that are not contained within the Kellogg Tunnel ditch that are either within the Kellogg Tunnel or outside of the Kellogg Tunnel in the mine yard.
- b. Contingency Diversion System Materials: Sand bags or other materials that could be easily transported and assembled to route mine water back to the ditch in an emergency situation.
- c. Contingency Diversion System Activation:
 - (1) Obtain materials: Within 90 days of the Effective Date of this Settlement Agreement.
 - (2) Deployment of Contingency Diversion System: Within 1 hour of the first indication, or when the Purchaser knows or should know, of mine water flowing outside of the Kellogg Tunnel ditch, regardless of cause.
- d. Contingency Diversion System Operation and Maintenance: Purchaser shall maintain and operate the Contingency Diversion System until notification from EPA that the system may be decommissioned and removed, in accordance with the following:
 - (1) The amount of Contingency Diversion System building materials continuously kept shall be sufficient to divert all flows as required by Paragraph 30.a, and shall be deployed in accordance with Paragraph 30.c to control flows during high flow events or to respond to emergencies.
 - (2) The Contingency Diversion System storage location and materials are to be kept serviceable and in operable condition at all times for Contingency Diversion System construction and operation.
 - (3) Written Contingency Diversion System construction procedures are to be developed and posted near the diversion system materials storage location within 90 days of the Effective Date of this

Settlement Agreement. Construction procedures shall provide sufficient detail for diversion system construction by all crew members. The construction procedures shall be periodically updated as needed. Purchaser shall provide the construction procedures to EPA upon request.

- (4) Contingency Diversion system procedures are to be periodically practiced, at least once per year, or more frequently as needed, to ensure the required diversion response times in Paragraph 30.c can be met. Purchaser shall inform EPA a minimum of 7 days prior to each Contingency Diversion System construction practice.

31. Reed Landing Flood Control Project Operations and Maintenance.

- a. Purchaser shall conduct operations and maintenance in accordance with the Reed Landing Flood Control Project Operations and Maintenance Manual ("O&M Manual"), attached as Appendix 4 to this Settlement Agreement.
- b. Purchaser shall conduct inspections of the Reed Landing Flood Control Project in accordance with the frequency described in the O&M Manual, fill out the Inspection Checklist for each inspection, and provide a copy of the completed checklist to EPA and the State upon request.
- c. Purchaser shall remove snow and take any other necessary steps to maintain access roads to provide for safe access to the Reed Landing Project area year-round.

32. Manage mine wastes, including existing piles of such waste around the Mine boundaries (i.e., the slope north of the wash building and south of the City of Kellogg offices) to prevent a release of such waste into the environment.

33. Continue to convey AMD to the CTP for treatment until an alternate treatment option is approved by EPA.

34. Treat flows from the Reed and Russell adits prior to discharge into surface waters or route back into the Mine to prevent discharge, without treatment, off-site.

35. Inspections.

- a. EPA may require an inspection of the In-Mine Diversion System following its initial construction pursuant to Paragraph 29(d)(1) to determine compliance with the requirements of Paragraph 29.
- b. EPA may have an on-site presence during the Work to be Performed. At EPA's request, the Purchaser or Purchaser's designee shall accompany EPA for inspections during the Work to be Performed.

- c. Purchaser shall provide specialty personal protective equipment needed for EPA personnel, transportation, and an escort for any oversight officials to perform their oversight and/or inspection duties within the mine.
- d. Upon notification by EPA of any deficiencies during the Work to be Performed on any component, Purchaser shall take all necessary steps to correct the deficiencies and/or bring the Work to be Performed into compliance. If applicable, Purchaser shall comply with any schedule provided by EPA in its notice of deficiency.

36. Emergency Response and Reporting. The reporting requirements under this Paragraph are in addition to the reporting required by CERCLA § 103 and/or the Emergency Planning and Community Right-to-Know Act ("EPCRA") § 304.

- a. If any incident occurs during performance of the Work to Be Performed that causes or threatens to cause a release of Waste Material on, at, or from the Mine and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Purchaser shall: (1) immediately take all appropriate action to prevent, abate, or minimize such release or threat of release; (2) immediately notify the authorized EPA officer, as specified in Paragraph 36.c, orally; and (3) take such actions in consultation with the authorized EPA officer.
- b. Upon the occurrence of any incident during performance of the Work to be Performed that Purchaser is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of EPCRA, 42 U.S.C. § 11004, Purchaser shall also immediately notify the authorized EPA officer orally.
- c. The "authorized EPA officer" for purposes of immediate oral notifications and consultations under Paragraphs 36.a and 36.b is the EPA RPM, or the EPA Emergency Response Unit, Region 10 at 206-553-1263 (if the RPM is not available).
- d. For any incident covered by Paragraphs 29.a and 29.b, Purchaser shall: (1) within 14 days after the onset of such incident, submit a report to EPA describing the actions or incidents that occurred and the measures taken, and to be taken, in response thereto; and (2) within 30 days after the conclusion of such incident, submit a written report to EPA describing all actions taken in response to such incident.

37. Purchaser shall perform all actions required by this Settlement Agreement in accordance with all applicable local, state, and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e). All on-Site actions required pursuant to this Settlement Agreement shall attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or

facility siting laws as set forth in the 1992 Record of Decision and the 2001 Record of Decision Amendment referenced in Paragraph 20 above.

X. PAYMENT

38. For so long as the Purchaser leases, owns, and/or occupies the Mine, Purchaser shall pay on behalf of PMC, as a portion of the purchase price, and in satisfaction of EPA's claim for cost recovery against PMC as set forth in the Complaint filed by the United States on March 17, 2004 in the United States District Court for the District of Idaho (2:04-cv-00126), to EPA \$20,000,000 in accordance with the following payment schedule:

<u>Date</u>	<u>Amount</u>
Within 30 days of the Effective Date	\$1,000,000
November 1, 2018	\$2,000,000
November 1, 2019	\$3,000,000
November 1, 2020	\$3,000,000
November 1, 2021	\$3,000,000
November 1, 2022	\$3,000,000
November 1, 2023	\$3,000,000
November 1, 2024	\$2,000,000

Purchaser shall make such payments for each year in which Purchaser leases, owns, and/or occupies the Mine on or after July 1. Purchaser's liability for such payments shall not extend to any year in which Purchaser no longer leases, owns, and/or occupies the Mine after July 1.

39. Purchaser shall additionally pay EPA for water treatment costs incurred at the Central Treatment Plant ("CTP") from December 1, 2017 onward in semi-annual installments of \$480,000 beginning within 30 days of the Effective Date and then every six months after December 1, 2017, for so long as Purchaser leases, owns, and/or occupies the Mine. Payments made toward water treatment and actual costs incurred will be reconciled annually. EPA will send written notification to Purchaser annually to reconcile costs paid with actual costs incurred, along with a bill for any owed costs, as appropriate. Payment of any owed costs as indicated in such notification and bill shall be paid 30 days after the date of such bill. The requirement in this Paragraph shall continue until the Purchaser finds alternative means to treat the water.

40. Purchaser shall make payment to EPA by Fedwire Electronic Funds Transfer (EFT) to:

Federal Reserve Bank of New York
ABA = 021030004
Account = 68010727
SWIFT address = FRNYUS33
33 Liberty Street
New York, NY 10045
Field Tag 4200 of the Fedwire message should read "D
68010727 Environmental Protection Agency"

Such payment shall reference Site/Spill ID Number 1020 and the EPA docket number for this action.

41. The total amount paid by Purchaser pursuant to Paragraphs 38 and 39 shall be deposited by EPA in the Bunker Hill Mining and Metallurgical Complex Special Account to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

42. Notice of such payments pursuant to this Section shall be provided to EPA in accordance with Paragraph 83, and to the EPA Finance Center by email or regular mail at:

EPA Cincinnati Finance Center
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268
Cinwd_acctsreceivable@epa.gov

Such notice shall reference Site/Spill ID Number 1020 and the EPA docket number for this action.

43. Potential Alteration of Payment Schedule. The Parties acknowledge that circumstances may arise necessitating alteration of the payment schedule set forth in Paragraph 38 above. The Parties address here those circumstances that are reasonably foreseeable to them at this time:

- a. If Purchaser cancels or defaults on the lease, or the lease terminates for any reason other than expiration of the lease term (or any extended lease term) or Purchaser's purchase of the Mine:

Purchaser shall pay any amounts due pursuant to Paragraph 38, above, and shall pay in full any outstanding payment due for water treatment pursuant to Paragraph 39 up through the month in which the lease terminates. Water treatment costs shall be calculated using the monthly rate of \$80,000 and further reconciled with actual costs;

- b. If Purchaser extends the lease term:

Purchaser shall make payments as they come due pursuant to Paragraph 38, above, and shall continue to make payments for water treatment in accordance with Paragraph 39;

- c. If Purchaser purchases the Mine and transfers all or substantially all of its interest in the Mine prior to completing the entire schedule of payments referenced in Paragraph 38:
- (1) The payment schedule in Paragraph 38 shall be accelerated and all payments thereunder shall be due and payable to the United States effective upon such transfer and the United States shall be deemed to have a security interest in any consideration given for such transfer;
 - (2) Purchaser shall pay in full any outstanding payment due for water treatment up through the month of the transfer. Water treatment costs shall be calculated using the monthly rate of \$80,000 and further reconciled with actual costs;
 - (3) To the extent that consideration for such transfer realized by Purchaser exceeds Purchaser's documented investment in the Mine plus 10% of that investment, the United States is entitled to an 80% share of such excess until the United States has been reimbursed all of its \$24 million past costs incurred at the Mine plus interest as provided by 42 U.S.C. § 9607;
 - (4) Such transfer must be conditioned upon Transferee reaching agreement with the United States regarding ongoing responsibility for water treatment costs;
- d. If Purchaser purchases the Mine and files for bankruptcy or ceases operating at the Mine at any time prior to completing the payments required in Paragraph 38:

The United States shall be deemed a secured creditor of Purchaser to the extent of all payments required under Paragraph 38 and not remitted at the petition date and all payments due under Paragraph 39.

- e. If Purchaser fails to make a payment as set forth in the payment schedules of Paragraphs 38 or 39, Purchaser shall have a three-month period in which to cure such default, which shall include Interest (as defined above) during the period of nonpayment.

XI. ACCESS/NOTICE TO SUCCESSORS/INSTITUTIONAL CONTROLS

44. Purchaser agrees to provide EPA, its authorized officers, employees, representatives, and all other persons performing response actions under EPA oversight, an irrevocable right of access at all reasonable times to the Mine and to any other property owned or controlled by Purchaser to which access is required for the implementation of response actions at the Site. EPA agrees to provide reasonable notice to Purchaser of the timing of response actions to be undertaken at the Mine and other areas owned or controlled by Purchaser. Notwithstanding any provision of this Settlement Agreement, the United States retains all of its access authorities

and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and other authorities.

- a. In particular, Purchaser shall not obstruct access to a pipeline maintenance port in the Mine yard area. Access to this port is required for routine maintenance, including but not limited to pipeline pigging, conducted by the CTP operators to ensure flows can reliably be conveyed to the CTP for treatment. The location is marked as "Upper Pigging/Camera Access Vault and Gate Valve" on the map included as Appendix 5.

45. Purchaser shall submit to EPA for review and approval a notice to be filed with the Recorder's Office or other appropriate office, Shoshone County, State of Idaho, which shall provide notice to all successors-in-title that the Mine is part of the Site, and that EPA issued a Record of Decision in 1992 and a Record of Decision Amendment in 2001 providing for the performance of a remedial action at the Site. Purchaser shall record the notice within 15 days of EPA's approval of the notice. Purchaser shall provide EPA with a certified copy of the recorded notice within 7 days of recording such notice.

46. Purchaser shall implement and comply with any land use restrictions and institutional controls on the Mine.

47. For so long as Purchaser is an owner or operator of the Mine, Purchaser shall require that assignees, successors in interest, and any lessees, sublessees and other parties with rights to use the Mine shall provide access and cooperation to EPA, its authorized officers, employees, representatives, and all other persons performing response actions under EPA oversight. Purchaser shall require that assignees, successors in interest, and any lessees, sublessees, and other parties with rights to use the Mine implement and comply with any land use restrictions and institutional controls on the Mine, and not contest EPA's authority to enforce any such land use restrictions and institutional controls on the Mine.

48. Upon sale or other conveyance of the Mine or any part thereof, Purchaser shall require that each grantee, transferee or other holder of an interest in the Mine or any part thereof shall provide access and cooperation to EPA, its authorized officers, employees, representatives, and all other persons performing response actions under EPA oversight. Purchaser shall require that each grantee, transferee or other holder of an interest in the Mine or any part thereof shall implement and comply with any land use restrictions and institutional controls on the Mine in connection with a response action and not contest EPA's authority to enforce any such land use restrictions and institutional controls on the Mine.

49. Purchaser shall provide a copy of this Settlement Agreement to any current lessee, sublessee, and other party with rights to use the Mine as of the Effective Date.

XII. INSURANCE

50. Not later than 15 days before commencing any Work to be Performed on-site under this Settlement Agreement, Purchaser shall secure, and shall maintain, commercial general liability insurance with limits of two million dollars, for any one occurrence, naming the United States as an additional insured with respect to all liability arising out of the activities performed

by or on behalf of Purchaser pursuant to this Settlement Agreement. In addition, for the duration of the Settlement Agreement, Purchaser shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work to be Performed on behalf of Purchaser in furtherance of this Settlement Agreement. Within the same time period, Purchaser shall provide EPA with certificates of such insurance and a copy of each insurance policy. Purchaser shall submit such certificate and copies of policies each year on the anniversary of the Effective Date. If Purchaser demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then, with respect to that contractor or subcontractor, Purchaser needs provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

XIII. RECORD RETENTION, DOCUMENTATION, AND AVAILABILITY OF INFORMATION

51. Purchaser shall preserve all documents and information in its possession relating to the Work, or relating to the hazardous substances, pollutants or contaminants found on or released from the Mine, and shall submit them to EPA upon completion of the Work required by this Settlement Agreement, or earlier if requested by EPA.

52. Business Confidential Claims. Purchaser may assert that all or part of a Record provided to EPA pursuant to this Settlement Agreement is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Purchaser shall segregate and clearly identify all Records or parts thereof submitted under this Settlement Agreement for which Purchaser asserts business confidentiality claims. Records claimed as confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Purchaser that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Purchaser.

XIV. DISPUTE RESOLUTION

53. The dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The United States and Purchaser shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally. If the United States contends that Purchaser is in violation of this Settlement Agreement, the United States shall notify Purchaser in writing, setting forth the basis for its position. Purchaser may dispute the United States' position pursuant to Paragraph 54.

54. If Purchaser disputes the United States' position with respect to Purchaser's compliance with this Settlement Agreement or objects to any United States action taken pursuant to this Settlement Agreement, Purchaser shall notify EPA in writing of its position unless the dispute has been resolved informally. The United States may reply, in writing, to Purchaser's position within 30 days of receipt of Purchaser's notice. The United States and Purchaser shall have 20 days from EPA's receipt of Purchaser's written statement of position to resolve the

dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended by agreement of the parties. Such extension must be confirmed in writing.

55. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by both Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official in the Region 10 Office of Environmental Cleanup at or above the level of Unit Manager will review the dispute on the basis of the Parties' written statements of position and issue a written decision on the dispute. That written decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Purchaser's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Purchaser shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with the written decision, whichever occurs.

XV. CERTIFICATION

56. By entering into this Settlement Agreement, Purchaser certifies that to the best of its knowledge and belief it has fully and accurately disclosed to the United States all information known to Purchaser and all information in the possession or control of its officers, directors, employees, contractors and agents which relates in any way to any Existing Contamination or any past or potential future release of hazardous substances, pollutants or contaminants at or from the Site and to its qualification for this Settlement Agreement. Purchaser also certifies that to the best of its knowledge and belief it has not caused or contributed to a release or threat of release of hazardous substances or pollutants or contaminants at the Site. If the United States determines that information provided by Purchaser is not materially accurate and complete, this Settlement Agreement, within the sole discretion of the United States, shall be null and void and EPA reserves all rights it may have.

XVI. WORK TAKEOVER

57. In the event EPA determines that Purchaser: (1) has ceased implementation of any portion of the Work to be Performed; (2) is seriously or repeatedly deficient or late in its performance of the Work to be Performed; or (3) is implementing the Work to be Performed in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice ("Work Takeover Notice"), which may be electronic, to Purchaser. Any Work Takeover Notice issued by EPA will specify the grounds upon which such notice was issued and will provide Purchaser a period of 3 days within which to remedy the circumstances giving rise to EPA's issuance of such notice.

58. If, after expiration of the 3-day notice period specified in Paragraph 57, Purchaser has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work to be Performed as EPA deems necessary ("Work Takeover"). EPA will notify Purchaser in writing, which may be electronic, if EPA determines that implementation of a Work Takeover is warranted under this Paragraph.

59. Notwithstanding any other provision of this Settlement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XVII. COVENANT NOT TO SUE BY UNITED STATES

60. Except as provided in Section XVIII (Reservation of Rights by the United States) and in consideration of the actions that will be performed in Section IX and the payments that will be made by Purchaser, pursuant to Paragraph 39, under the terms of this Settlement Agreement, the United States covenants not to sue or to take administrative action against Purchaser pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for Existing Contamination, Work, and payments made pursuant to Paragraph 39. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Purchaser of all obligations under this Settlement Agreement coming due during Purchaser's leasehold, ownership, and/or occupancy of the Mine, including, but not limited to, performance of the Work required by this Settlement Agreement and the payments required pursuant to Paragraph 39. This covenant not to sue extends only to Purchaser and does not extend to any other person. In no event shall Purchaser's liability for Existing Contamination exceed the amount owed by Purchaser pursuant to Paragraphs 38 and 39.

XVIII. RESERVATION OF RIGHTS BY UNITED STATES

61. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent the United States from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, or from taking other legal or equitable action as it deems appropriate and necessary.

62. The covenant not to sue set forth in Section XVII, above, does not pertain to any matters other than those expressly identified therein. The United States reserves, and this Settlement Agreement is without prejudice to, all rights against Purchaser with respect to all other matters, including, but not limited to:

- a. liability for failure by Purchaser to meet a requirement of this Settlement Agreement;
- b. criminal liability;
- c. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

- d. liability for violations of federal, state, or local law or regulations during or after implementation of the Work other than as provided in the Workplan, the Work, or otherwise ordered by EPA;
 - e. liability resulting from the release or threat of release of hazardous substances, pollutants or contaminants at or in connection with the Site after the Effective Date, not within the definition of Existing Contamination;
 - f. liability resulting from exacerbation of Existing Contamination by Purchaser, its agents, contractors, sub-contractors, successors, assigns, lessees, or sublessees;
 - g. liability arising from Purchaser's, its agents', or its employees' disposal, release or threat of release of Waste Materials outside of the Site.
-

63. With respect to any claim or cause of action asserted by the United States, Purchaser shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to Existing Contamination and that Purchaser has complied with all of the requirements of 42 U.S.C. § 9601(40).

XIX. COVENANT NOT TO SUE BY PURCHASER

64. Purchaser covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to Existing Contamination, the Work, payments pursuant to Paragraph 39, or this Settlement Agreement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of response actions, including any claim under the United States Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law; or
- c. any claim pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law.

65. Purchaser reserves, and this Settlement Agreement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in

accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval, disapproval, or modification of Purchaser's plans, reports, other deliverables, or activities.

66. Nothing in this Settlement Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XX. EFFECT OF SETTLEMENT/CONTRIBUTION

67. Nothing in this Settlement Agreement precludes the United States or Purchaser from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any person not a party to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response actions and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

68. If a suit or claim for contribution is brought against Purchaser, the Parties agree that this Settlement Agreement shall then constitute an administrative settlement pursuant to which Purchaser has, as of the Effective Date, resolved liability to the United States within the meaning of Sections 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) of CERCLA, or as may be otherwise provided by law, for the "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work to be Performed and payments made pursuant to Paragraph 39.

69. The Parties agree that this Settlement Agreement shall constitute an administrative settlement pursuant to which Purchaser has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

70. Purchaser agrees that with respect to any suit or claim brought by it for matters related to this Settlement Agreement it will notify the United States in writing no later than 60 days prior to the initiation of such suit or claim.

71. Purchaser also agrees that with respect to any suit or claim for contribution brought against it for matters related to this Settlement Agreement it will notify the United States in writing within 10 days of service of the complaint on it. In addition, Purchaser agrees that it will notify the United States within 10 days of service or receipt of any Motion for Summary Judgment and within 10 days of receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

XXI. RELEASE AND WAIVER OF LIENS

72. Subject to the Reservation of Rights in Section XVIII of this Settlement Agreement, and so long as Purchaser is in compliance with the requirements of Sections IX

(Work to be Performed) and X (Payment), EPA agrees not to enforce any lien it may have on the Mine, and upon satisfactory completion of the Payments specified in Section X, Paragraph 38, EPA agrees to release and waive any lien it may have on the Mine now and in the future under Section 107(r) of CERCLA, 42 U.S.C. § 9607(r), for costs incurred or to be incurred by EPA in responding to the release or threat of release of Existing Contamination.

XXII. INDEMNIFICATION

73. Purchaser shall indemnify, save, and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Purchaser, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Purchaser agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys' fees and other expenses of litigation, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Purchaser, Purchaser's officers, directors, employees, agents, contractors, subcontractors, and any persons acting on Purchaser's behalf or under Purchaser's control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Purchaser in carrying out activities pursuant to this Settlement Agreement. Neither Purchaser nor any such contractor shall be considered an agent of the United States.

74. The United States shall give Purchaser notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Purchaser prior to settling such claim.

75. Purchaser waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Purchaser and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Purchaser shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Purchaser and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXIII. MODIFICATION

76. Any requirements of this Settlement Agreement may be modified in writing by mutual agreement of the Parties.

77. No informal advice, guidance, suggestion, or comment by any EPA representative regarding reports, plans, specifications, schedules, or any other writing submitted by Purchaser shall relieve Purchaser of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXIV. ATTACHMENTS

78. The following attachments are attached to and incorporated into this Settlement Agreement:

- a. Appendix 1 is the Lease (and associated amendment) between Purchaser and PMC;
- b. Appendix 2 is the description of the parcel not being listed in the Lease but that is an integral part of the Mine;
- c. Appendix 3 is a Map of the Site;
- d. Appendix 4 is the Reed Landing Flood Control Project Operations and Maintenance Manual; and
- e. Appendix 5 is the Map indicating the location of the Upper Pigging/Camera Access Vault and Gate Valve.

XXV. NOTICE OF COMPLETION

79. When Purchaser has remitted all payments required by Section X and EPA determines that Purchaser has performed all Work in accordance with this Settlement Agreement, EPA will provide written notice to Purchaser. If, at the time that Purchaser has fully remitted all payments required pursuant to Section X EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Purchaser, provide a list of the deficiencies, and require that Purchaser correct such deficiencies. Purchaser shall correct such deficiencies and shall submit written notification of such corrections in accordance with the EPA notice. Failure by Purchaser to correct such deficiencies and submit a notification reflecting that deficiencies have been corrected shall be a violation of this Settlement Agreement.

XXVI. EFFECTIVE DATE

80. The Effective Date of this Settlement Agreement shall be the date upon which the United States Department of Justice issues written notice to Purchaser that the United States Department of Justice has fully executed the Settlement Agreement after review of and response to any public comments received.

XXVII. DISCLAIMER

81. This Settlement Agreement in no way constitutes a finding by EPA as to the risks to human health and the environment which may be posed by contamination at the Mine or the Site nor constitutes any representation by EPA that the Mine or the Site is fit for any particular purpose.

XXVIII. PAYMENT OF COSTS

82. If Purchaser fails to comply with the terms of this Settlement Agreement, it shall be liable for all litigation and other enforcement costs incurred by the United States to enforce this Settlement Agreement or otherwise obtain compliance.

XXIX. NOTICES AND SUBMISSIONS

83. Any notices, documents, information, reports, plans, approvals, disapprovals, or other correspondence required to be submitted from one party to another under this Settlement Agreement, shall be deemed submitted either when hand-delivered or as of the date of receipt by certified mail/return receipt requested, express mail, or facsimile.

Submissions to Purchaser shall be addressed to:

Bunker Hill Mining Corp.
c/o Bruce Reid, President
401 Bay Street, Suite 2702
Toronto, ON-M5H 2Y4

With copies to:

Lyons O'Dowd, PLLC
201 N. 3rd St.
P.O. Box 131
Coeur d'Alene, Idaho 83816
Attn: Marc Lyons and Luke O'Dowd
marc@lyonsodowd.com
luke@lyonsodowd.com

Submissions to U.S. EPA shall be addressed to:

Ed Moreen
Project Manager
U.S. EPA, Region 10
1910 Northwest Boulevard, Suite 208
Coeur d'Alene, Idaho 83814

With copies to:

Kris Leefers
Assistant Regional Counsel
U.S. EPA, Region 10
1200 Sixth Avenue, M/S: ORC-113
Seattle, WA 98101

Chief, Environmental Enforcement Section

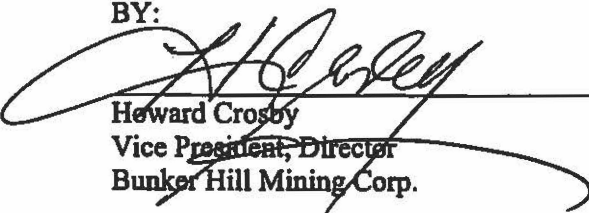
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Ref. No. 90-11-3-07227/8

XXX. PUBLIC COMMENT

84. This Settlement Agreement shall be subject to a 14-day public comment period, after which the United States may modify or withdraw its consent to this Settlement Agreement if comments received disclose facts or considerations which indicate that this Settlement Agreement is inappropriate, improper or inadequate.

The undersigned representative of Purchaser certifies that it is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party it represents to this document.

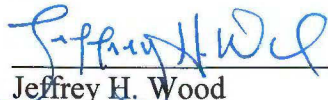
IT IS SO AGREED:
BUNKER HILL MINING CORP.
BY:



Howard Crosby
Vice President, Director
Bunker Hill Mining Corp.

1 - 30 - 2010

Date

IT IS SO AGREED:
UNITED STATES DEPARTMENT OF JUSTICE
BY:





Jeffrey H. Wood

Date

Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Frederick S. Phillips, Senior Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044
202.305.0439


Date

IT IS SO AGREED:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY:





Sheryl Bilbre

Date

Director, Office of Environmental Cleanup

EPA Region 10

Appendix 1

Bunker Hill Mining Lease with Option to Purchase

THIS MINING LEASE (the "lease"), effective as of the 1st day of November, 2017 (the "Effective Date"), regardless of the actual times of signing and acknowledgment, between Placer Mining Corporation, a Nevada corporation, hereinafter called Lessor or Seller, and Liberty Silver Corp. a Nevada Corporation, hereinafter called Lessee or Purchaser.

WITNESSETH:

ARTICLE 1. DESCRIPTION OF THE PROPERTY. Lessor represents that it is the owner of the property consisting of all that real property, mineral interests and patented and unpatented lode mining claims situated in Shoshone County, Idaho, further described and listed on Exhibit A, together with all tenements, hereditaments, improvements, appurtenances, privileges and easements which are located on such mining claims and/or parcels of real property, and/or used in connection with and/or belong to Lessor in connection with exploring, mining, treating, extracting, storing, shipping, removing and/or marketing minerals, and all other interests associated with the property for the effective use and operation of the mine (including without limitation all access rights, rights of way, roads, haulways, leases, water rights and/or permits, all buildings, structures, fixtures, underground fixtures, air flumes, all equipment (wherever located), all personal property used in connection with mining, milling and/or exploration for minerals, all timber and trees thereon, and all mining claims, maps, reports and plans) (cumulatively such property is referred to herein as the "Bunker Hill Mine" or the "Leased Premises").

ARTICLE 2. GRANT OF LEASE AND PAYMENTS. Lessor hereby grants, demises, leases and lets exclusively unto Lessee, its successors and assigns the Bunker Hill Mine. Upon signing of this lease by all parties, the Lessee shall make a payment of \$100,000 to cover the maintenance expenses and upkeep of the mine for the month of September, 2017. Lessor shall make a payment of \$100,000 on October 1, 2017 to cover care and maintenance expenses and upkeep of the mine for the month of October, 2017. The term of the lease shall begin on November 1, 2017 and on or prior to that date, the Lessee shall make a payment of \$200,000 for the months of November, 2017 and December, 2017. Thereafter the Lessee shall make the payments on a quarterly basis. For example, the Lessee shall pay Lessor a quarterly payment of \$300,000 on January 1, 2018, which shall cover the monthly rent for the months of January, February and March of 2018. Said quarterly payments shall begin on January 1, 2018 and continue throughout the term of the lease. None of the lease payments or deposits shall be credited against the purchase price.

Additionally, no later than November 15, 2017, the Lessee shall make a bonus payment to Lessor of \$500,000 and an additional bonus payment of \$500,000 on December 15, 2017. These latter payments shall be considered bonus payments and not an advance against royalties or against a future purchase of the Bunker Hill Mine.

ALL WIRE TRANSFERS TO LESSOR COMING FROM CANADA (OR ANY INTERNATIONAL LOCATION) NEED TO BE INITIATED TWO BUSINESS DAYS PRIOR TO THE DUE DATE AND A WIRE CONFIRMATION NUMBER SHALL BE FORWARDED TO THE LESSOR VIA EMAIL ON THE DATE OF THE WIRE TRANSFER. ALL DOMESTIC BUSINESS WIRES TO LESSOR SHALL BE MADE ONE BUSINESS DAY PRIOR TO THE DUE DATE AND A WIRE CONFIRMATION NUMBER SHALL BE FORWARDED TO THE LESSOR VIA EMAIL ON THE DATE OF THE WIRE TRANSFER.

ARTICLE 3. TERM OF LEASE. The primary term of the lease shall be twenty-four months to begin on November 1, 2017 and end on October 31, 2019. Upon written notice, which must be sent to Lessor at least thirty (30) days prior to the expiration of the primary term in order to be effective, Lessee may extend this lease for up to twelve months by paying to Lessor an additional bonus payment of \$600,000 and by continuing to pay the monthly payments of \$100,000 per month.

ARTICLE 4. PURCHASE OPTION. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Lessor hereby exclusively grants to Lessee, its successors and assigns the right to purchase the Bunker Hill Mine during the primary lease term and any extension thereto.

- (a) Notice of Exercise. To exercise the purchase option, Lessee must give written notice to the Lessor of its intent to exercise such purchase option. Lessor must receive such notice 120 days prior to the date on which the Lessee intends to close the purchase (the "Closing Date"). Lessee must also give similar written notice to the U.S. Department of Justice and the U.S. Environmental Protection Agency ("U.S. E.P.A.") of its intention to exercise its purchase option. During the period between the notification of exercise of the purchase option and the closing date, the Lessee and Lessor shall to the best of their abilities prepare all final documents necessary for closing (including a mortgage and note), finalize and receive approval of the settlement agreement between the United States and the Seller, and finalize and receive approval of a bona fide prospective purchaser agreement/release of lien and covenant not to sue between the United States and the Purchaser.
- (b) Exercise After Production is Initiated. In the event that Lessee is in production for a minimum period of twelve months and at an average production rate at or exceeding 500 tons per day Lessor may, upon thirty days written notice to the Lessee, require the Lessee to exercise the purchase option.
- (c) Purchase Price. The agreed and binding purchase price for the Bunker Hill Mine is \$45,000,000.00 (Forty-Five Million Dollars) to be paid in accordance with the following schedule:

Date	Payment to Lessor	Payment to U.S. E.P.A.
On Closing	\$4,000,000	\$3,000,000
One year after closing	\$3,000,000	\$3,000,000
Two years after closing	\$3,000,000	\$3,000,000
Three years after closing	\$3,000,000	\$3,000,000
Four years after closing	\$2,000,000	\$3,000,000
Five years after closing	\$1,670,000	\$1,670,000
Six years after closing	\$1,670,000	\$1,670,000

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Seven years after closing	\$1,670,000	\$1,660,000
Eight years after closing	\$1,670,000	
Nine years after closing	\$1,670,000	
Ten years after closing	\$1,650,000	
Total	\$25,000,000	\$20,000,000

- (d) Payments to U.S. E.P.A. The payments being made to the U.S. E.P.A. by Lessee/Purchaser in the above table reflect the agreed settlement payments that have been tentatively accepted by the U.S. Department of Justice and U.S. E.P.A.
- (e) Classification of Payments. All of the tabulated payments in Article 4 (b) above are considered by the Purchaser to be payments for the Bunker Hill Mine purchase. The Seller considers the payments to be \$25,000,000 for the purchase of the Bunker Hill Mine, and \$20,000,000 for settlement of past response costs incurred by the United States in treatment of water outflows from the Bunker Hill Mine.
- (f) The parties recognize that the financial terms of this option are enforceable by Lessee/Purchaser. Any subsequent purchase agreement by the parties shall ultimately supersede this lease agreement upon exercise of the purchase option and closing of the purchase. LESSOR AND LESSEE AGREE TO NEGOTIATE in good faith AND COMPLETE ALL the remaining and unfinished TERMS OF THE PURCHASE agreement. The terms of the payments are already negotiated and set out in this lease and option agreement and shall remain the same in the final definitive purchase agreement.
- (g) FOR CLARITY, "COMPLETION" IS CONSIDERED BY THE PARTIES TO MEAN THAT THE DOCUMENT AND ALL EXHIBITS AND SUPPORTING DOCUMENTATION IS PREPARED SUCH THAT IN EVENT THE PURCHASE OPTION IS EXERCISED, CLOSING OF THE PURCHASE COULD OCCUR WITHIN FIVE BUSINESS DAYS.

ARTICLE 5. PROPERTY PROVISIONS

- (a) **POSSESSION AND CONTROL OF PROPERTY.** Lessee shall have, and it is hereby given and granted, the right to enter upon and take over, at the beginning of the primary term hereof, operational control and possession and of the Leased Premises and the whole and every part thereof, and, during the term of this lease, to remain in operational control and possession thereof; to investigate, measure, sample, examine, test, develop, work, mine, operate, use, manage and control the same and the water and water rights appurtenant thereto; to mine, extract and remove from said property the ores and minerals therein and appurtenant and belonging thereto; to treat, mill, ship, sell or otherwise dispose of the same and receive the full proceeds therefrom; and to erect, construct, maintain, use and operate thereon and therein buildings, structures, machinery and equipment, including milling, processing and tailings facilities. The time, nature, location and extent of such or any or all the above activities and mining or mining operations and the cessation and resumption

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thereof shall be at the sole discretion of Lessee, and may include, without limitation, underground or solution mining methods (but no open pit or strip mining methods may be used) together with the right to use so much of the surface as may be necessary, useful or convenient for the enjoyment of all rights herein granted, including construction of ingress and egress into and out of the underground workings, construction of a surface waste rock dump and a tailings impoundment facility or facilities, if necessary, for development of the Leased Premises. Any surface mine waste dump or tailings impoundment facilities constructed during the life of this lease shall be reclaimed to industry standards by Lessee at lease termination unless the purchase option is exercised. Lessee acknowledges that Lessor shall continue to have the rights to ingress and egress both underground and on the surface of the Leased Premises for purposes of conducting its own exploration and possible development of mineral resources which Lessor continues to own and control. Each party agrees to use best efforts to coordinate the activities of the parties to minimize interference with the work-related activities of the other party. Lessee shall, upon 72 hours notice by Lessor, ensure that the KT rail haulage is available for ore haulage and other materials handling if so required by Lessor.

- (b) **UNPATENTED MINING CLAIM PAYMENTS.** If applicable, during the lease term Lessee shall be responsible for all mining claim fee payments to the U.S. Bureau of Land Management ("BLM") on all unpatented mining claims listed in Exhibit A and any other unpatented mining claims acquired by Lessee during the lease period. Lessee shall be responsible for the filing of all reports and forms with BLM and with Shoshone County, Idaho during the lease term. Lessor shall remain responsible for all taxes and fees on the patented mining claims and real property during the term of the lease.
- (c) **DATA.** Lessor and Lessee shall mutually make all data relating to the Leased Premises available to each other, whether existing now or developed in the future, which either party may copy or reproduce at their own expense. Such data shall include without limitation, in hard copy or electronic form, any and all data and information relating to exploration, planning, mining, metallurgy, processing, land, mineral rights, water rights, timber rights, permits, taxes, claim fees and status, economic data or projections, geologic, geochemical and geophysical data including reports, maps, sections and drill logs, core and/or cuttings; any and all assays, analyses, reports, processes, trade secrets; and any and all other data, records or reports relating to the Leased Premises.
- (d) **SCRAP MATERIALS –** In the event any scrap material is removed from the mine from the Lessee, Lessor retains ownership and shall receive any sale proceeds from the disposition of scrap material which shall not be a credit to the lease or purchase payments.

ARTICLE 6. MANNER OF WORK. Lessee agrees to cause all work, development and mining to be done in a careful and miner-like manner and to conform in all respects to the mining laws and regulations of the United States and the State of Idaho.

ARTICLE 7. ROYALTY PAYMENTS DURING THE LEASE PERIOD. Lessor hereby reserves and Lessee hereby agrees to pay as a production royalty 3% of the Net Smelter Return

(as defined and accounted for in Article 8 below) of all ores or concentrates of mineralized material mined and shipped from the Leased Premises (the "Lease Production Royalty"). Lessor/Seller warrants and represents that no other royalties are due to any other party from minerals produced from the Bunker Hill Mine.

ARTICLE 8. DEFINITION OF NET SMELTER ROYALTY

- a) As used herein, "Net Smelter Return" means the amount paid by any smelter or other ore purchaser for ores or concentrates sold less actual costs of transportation and other costs in the course of handling, assumed by or charged to Lessee/Purchaser (including freight, insurance and tax) in making shipments from the Bunker Hill Mine to the smelter or other purchaser, less all charges for refining, smelting, sampling, assaying, and penalties; less all royalties or overriding royalties burdening the Bunker Hill Mine that exist on the date of this lease or are created by Lessor/Seller after the date hereof; and less gross production, severance, general property and other taxes attributable to production from the Bunker Hill Mine.
- b) The Lease Production Royalty shall be accounted for and paid monthly to Lessor within 30 days after the end of each calendar month within which the mineralized materials are sold. All payments shall be accompanied by a statement explaining the manner in which payment was calculated. No royalty shall be due or payable on any mineralized material stockpiled on the Bunker Hill Mine until the sale or disposition thereof. Within 90 days after receiving the above-described statement of account, Lessor/Seller shall give notice of any objections to the statement, for any reason, touching upon its accuracy or inaccuracy, by mailing such objections to Lessee as provided in Article 25 below; and in default thereof, any inaccuracies in such statement shall be deemed waived by Lessor/Seller.
- c) **Disputes Regarding Royalties.** Lessor/Seller shall be deemed to have waived any right the Lessor/Seller may have to object to the royalty settlement made by Lessee/Purchaser for any calendar quarter, unless Lessor/Seller notifies Lessee/Purchaser in writing of such objection within twelve (12) months after such royalty is due. If Lessor/Seller and Lessee/Purchaser are unable to resolve the royalty settlement dispute by agreement within thirty (30) days after Lessee/Purchaser's receipt of Lessor/Seller's notice, the dispute shall be resolved by arbitration, in accordance with the provisions of Article 23.
- d) **Once the lessor exercise the purchase option, Placer shall be granted an Net Smelter Royalty which is payable only from production as it is described in the LOI amended agreement between the parties dated March 29, 2017, and initialed by Bob Hopper and John Ryan.**

ARTICLE 9. TAILINGS AND BENEFICIATION

- (a) Lessee shall have the right, but shall not be required, to beneficiate, concentrate, and otherwise treat, in any manner, either wholly or in part at a plant or plants on the Leased Premises (either on the surface or underground) or on other lands, any mineralized material or other materials, including waste rock, which are mined or produced from the Leased Premises. Such treatment shall be conducted in a careful and workmanlike manner. The

tailings and residue from such treatment shall be deemed waste and may be deposited on the Leased Premises or on other lands.

ARTICLE 10. LESSEE EXCLUSIONS/LESSOR MINING RIGHTS

- (a) **LESSEE EXCLUSIONS.** The Lessee is excluded from mining or other activity in the Caledonia Mine area and in the Crystal Stope Mine area. These areas shall remain under the exclusive possession and control of the Lessor.
- (b) **LESSOR MINING RIGHTS.** Lessor is hereby granted the right, if it so desires, to mine or remove from the areas listed herein in Exhibit B any ores, waste, water and other materials existing therein or thereon or in any part thereof, through or by means of shafts, tunnels, drifts, raises, or other openings, now existing or installed by Lessor. Lessor may stockpile any ores, waste, or other materials and/or concentrated products of ores or materials from the areas listed herein in Exhibit B, upon agreed stockpile grounds situated upon nearby property, not, however, preventing or interfering with the mining or removal of ore from the Leased Premises by the Lessee. If Lessee executes the purchase option and Lessor is exploring, mining or developing properties thereto, Lessor and Lessee agree that future activities of Lessor shall be governed by provisions provided for in the Final Purchase Agreement.

ARTICLE 11. RECORDS, INSPECTION AND ACCESS TO LEASED PREMISES.

Lessee's engineering progress maps and all factual exploration, development and production data including drill core and assay results (but excluding interpretive information or data) from the Leased Premises shall be available upon reasonable request for Lessor's inspection. The Lessor may enter said property at reasonable times for the purpose of inspecting the same or for the purposes described in Articles 4(b) and 4(c), and Lessee shall facilitate such inspection and entry in reasonable ways, but Lessor shall enter upon said Leased Premises at Lessor's own risk and so as not to hinder unreasonably the operations of Lessee; and the Lessor shall indemnify and hold harmless the Lessee from any damage, claim or demand by reason of injury to or the presence of the Lessor or the Lessor's agents, representatives, licensees, or guests on the Leased Premises or approaches thereto.

ARTICLE 12. TAXES. Lessor shall remain responsible for all taxes and fees on the Leased Premises. Lessee shall pay, before they are delinquent, all taxes levied or assessed against any or all personal property, machinery and equipment placed upon the Leased Premises by the Lessee during the term of this lease. Lessee shall pay any severance tax and all other taxes that are now or may be hereafter levied and computed on the amount or value of ores produced from the Leased Premises.

ARTICLE 13. STATE AND FEDERAL LAWS AND REGULATIONS. Lessee shall comply with the Workmen's Compensation laws of Idaho and with Social Security, Unemployment Insurance and all other state and federal laws and regulations relating to Lessee's operations and shall save Lessor harmless from any claim for damages or liability by reason thereof.

ARTICLE 14. PROTECTION FROM LIENS AND DAMAGES. Lessee shall keep the Leased Premises and the whole and every part thereof free and clear of liens for labor done or work performed upon the Leased Premises or materials furnished to it for the development or operation thereof under this lease while the same is in force and effect, and will save and hold harmless Lessor from all costs, losses or damages which may arise by reason of injury to any persons employed by Lessee in or upon the Leased Premises or any part thereof or which may arise by reason of injury to any persons or damage to any property as the result of any work or operations of the Lessee or of its possession and occupancy of the Leased Premises. A lien upon the property shall not constitute a default if the Lessee in good faith disputes the validity of the claim, in which event the existence of the lien shall constitute a default only from and after the validity of the lien has been adjudicated.

ARTICLE 15. INSURANCE REQUIREMENTS. During the Lease term, Lessee shall pay for and maintain commercial general liability insurance. This policy shall name Lessor as an additional insured and shall insure Lessee's activities and against loss, damage or liability for personal injury or bodily injury (including death) or loss or damage to property with a liability limit of not less than \$2,000,000.

ARTICLE 16. FORCE MAJEURE. If Lessee is unable to perform any of the terms or covenants of this lease by reason of damage or delay resulting from disaster, labor disturbances, shortage of labor, strikes, lockouts, act of God, or from any regulations or restrictions of any governmental agency, or on account of any eventuality beyond the reasonable control of Lessee, including state and federal environmental statute or regulation, Lessee shall be excused from performance during the period of such prevention and the time for performance of such obligations shall be extended for a period equal to the period or periods of prevention. In the event Lessee or its purchaser of concentrates or crude ore is, becomes or believes it is about to become subject, at any time, to environmental regulations (which shall include any governmental law, rule, order, regulation, policy, proposal or restriction relating to environmental pollution) which will prohibit or materially affect any operation Lessee is carrying out, or planning to carry out hereunder, Lessee shall have the right to declare the existence of a condition of force majeure during the period in which it is in good faith seeking a feasible method to comply with, be exempted from, modify, obtain necessary permits or licenses under, or prevent the enactment or promulgation of said environmental regulations. Lessee agrees to use reasonable diligence to remove causes of force majeure as may occur from time to time, but shall not be required to settle strikes or other labor difficulties contrary to its own judgment.

ARTICLE 17. DEFAULT. The failure of Lessee to make or cause to be made any of the material payments herein provided for or to keep or perform any material agreement on its part to be kept or performed according to the terms and provisions of this lease, shall, at the election of the Lessor, constitute an event of default and grounds for termination of this Lease; provided, however, that in the event of a default on the part of the Lessee, the Lessor shall give to the Lessee a written notice of its intention to declare an event of default of this lease and to terminate the same on account thereof, or of its intention to take other action to enforce this lease, specifying the particular default or defaults relied upon by it, and Lessee shall have a reasonable time (which in any case shall not be less than fifteen (15) days) after receipt of such notice in which to cure such default or defaults, in which event there shall be no default therefor, and no

other action may be taken for enforcement. Lessee shall not dispute an event of default that is a missed payment. For any other default, if Lessee disputes that such default occurred, it shall so advise Lessor in writing within fifteen (15) days after receipt of the notice of default. If, within fifteen (15) days thereafter, the parties have not resolved the dispute by mutual agreement, the issue of default shall then be submitted to arbitration under Article 23 below. In the event that Lessor does terminate this lease on account of a breach by Lessee, Lessee shall be under no further obligation or liability hereunder to Lessor from and after the date of such termination except for the performance of obligations and the satisfaction of liabilities to Lessor or third parties or respecting the Leased Premises which have accrued to the date of such termination.

ARTICLE 18. CANCELLATION. Notwithstanding any provision herein to the contrary, Lessee may at any time upon 60 days' written notice, cancel and terminate this lease in its entirety. Upon total cancellation and termination of this lease, Lessee shall be under no further obligation of whatsoever kind or nature to the Lessor except for the making of payments which have already accrued to the date of such cancellation and termination, including governmental rental fees for unpatented claims and for the payment of any royalties which are owed to the Lessor for production during the term of the lease.

ARTICLE 19. SURRENDER OF PROPERTY. In the event of a valid forfeiture, cancellation, or other termination of this lease, Lessee shall surrender to Lessor peaceable possession of the Leased Premises and at the written request of Lessor shall deliver to the Lessor a written relinquishment hereof, together with a copy, if requested by Lessor within thirty (30) days after termination of this lease, of its engineering progress maps showing any workings made or uncovered by Lessee on the Leased Premises. The Lessee's factual exploration, development and production data including drill core and assay results (but excluding interpretive information or data) from the Leased Premises shall be available upon request to the Lessor.

ARTICLE 20. REMOVAL OF EQUIPMENT. Lessee shall have and is hereby given and granted three (3) months after a valid forfeiture, cancellation or other termination of this lease to remove from said property all mobile equipment and personal property of the Lessee and its employees, consultants and contractors. If Lessee is hampered by snowdrifts, washouts, inclement weather, or other climatic conditions from completing the removal of said property and equipment within the time specified, then Lessor agrees to extend the time by a reasonable period if requested by Lessee.

ARTICLE 21. OTHER PAYMENTS DURING LEASE. In addition to lease payments, Lessee agrees specifically to pay the following additional payments:

Payee	Amount (\$)	Actual or Estimated	Frequency
United States EPA (water treatment)	\$240,000	Estimated	Quarterly
Mine (KT) Maintenance Crew	\$33,000	Actual	Monthly
Robert Hopper	\$4,000	Actual	Monthly
Thomas Hopper	\$4,000	Actual	Monthly

Dave Kriederman	\$4,000	Actual	Monthly
Avista (Electric Utilities)	\$12,000	Estimated	Monthly

ARTICLE 22. ADDITIONAL COVENANTS.

- (a)** Lessor hereby warrants and represents that as of the effective date of the lease, the Bunker Hill Mine is free and clear of all liens, judgments and any and all other interests that may adversely impact the rights and privileges of Lessee hereunder (including without limitation Lessee's right to purchase the Leased Property), with the exception of the U.S. E.P.A. lien. Lessor further represents and warrants that Lessor will not, during the term of the lease or any extension thereto, take out any mortgage, deed of trust and/or take any other action that could result in the Bunker Hill Mine (or any portion thereof) being subject to a lien, judgment or any other interest that could impact or impair the rights and privileges of Lessee hereunder.
- (b)** Lessor warrants and represents that the execution of the lease will not result in a violation of any court order, any existing contract or any other obligation of Lessor.
- (c)** Lessor shall indemnify, defend, and hold Lessee harmless from any and all liability, claim, damage, loss, injury, expense, cause of action, dispute and cost (including payment of attorney fees) that may arise from or relate to a breach of any of Lessor's representations, warranties or covenants in this lease. Furthermore, Lessor shall indemnify, defend and hold Lessee harmless from any and all liability, claim, damage, loss, injury, expense, cause of action, dispute and cost (including payment of attorney fees) that may arise from or relate to conduct of the Lessor.
- (d)** Lessee shall indemnify, defend, and hold Lessor harmless from any and all liability, claim, damage, loss, injury, expense, cause of action, dispute and cost (including payment of attorney fees) that may arise from or relate to a breach of any of Lessee's representations, warranties or covenants in this lease. Furthermore, Lessee shall indemnify, defend and hold Lessor harmless from any and all liability, claim, damage, loss, injury, expense, cause of action, dispute and cost (including payment of attorney fees) that may arise from or relate to conduct of the Lessee.
- (e)** The parties warrant and represent that they have the authority to enter into this lease, and that the terms hereof are binding.

ARTICLE 23. ARBITRATION OF DISPUTES. Any controversy, dispute or claim arising out of or from this lease, or alleged breach thereof, shall be settled by arbitration pursuant to the Uniform Arbitration Act of the State of Idaho (Sections 7-901, et. seq., Idaho Code) as amended and as in effect on the date either party commences arbitration proceedings. Said Act shall control the substantive and procedural aspects of the proceedings unless otherwise agreed in this lease. Judicial review may be had pursuant to said Act.

B.H.
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- (a) Proceedings shall be initiated by the complaining party serving upon the other party a complaint, as would be done in court proceedings. The allegations regarding the circumstances giving rise to the issues to be arbitrated shall be stated in detail and with particularity. The party upon whom the complaint is served shall answer or otherwise respond with a pleading just as is required by the Idaho Rules of Civil Procedure for a court action. Except, however, the response shall be served upon the initiating party within 30 days from the date of service of the complaint.
- (b) The parties shall agree upon an arbitrator, who is neutral, competent and willing to serve and, if possible, who has experience in cases involving mining and mining contracts. Should the parties fail to reach agreement on appointment of an arbitrator within 20 days from the date proceedings are initiated, either party may apply to the court for appointment of an arbitrator who meets the criteria set forth herein pursuant to the provisions of section 7-903 Idaho Code.
- (c) Prehearing discovery shall not be allowed except upon order of the arbitrator for good cause shown, the parties being in agreement that the expense and time associated with discovery should be minimized, and that this desire should, however, be balanced against the need for each party to be able to effectively present its case.
- (d) Each party to the arbitration proceedings shall bear one-half of the arbitrator's fees and expenses, which shall be promptly paid by each party monthly within 15 days from the submission by the arbitrator to the parties of his/her reasonably detailed and itemized statement for services rendered, which statement shall be submitted by the arbitrator at the end of each month.
- (e) Each party shall bear its own attorney's fees and costs of litigation for the proceedings before the arbitrator. This subparagraph (e) is not applicable to court proceedings, in which event the parties recognize that applicable law shall govern and the matter will be decided by the court.

ARTICLE 24. RECORDATION OF SHORT FORM NOTICE. Lessee and Lessor agree to execute short-form notices of this lease and production royalties, as applicable, which notice shall be for purposes of recordation in the real property records of Shoshone County, Idaho.

ARTICLE 25. NOTICES. Any notices required or permitted to be given to the Lessor hereunder shall be considered as delivered forty-eight (48) hours after the same shall have been deposited in the United States mail, duly registered, with postage thereon prepaid. All notices given hereunder shall be addressed to the respective addresses given below:

If to Lessee:

Liberty Silver Corp.
c/o John Ryan
P.O. Box 57
Kellogg, Idaho 83837

R.H.
BDR

With a copy to:

Luke O'Dowd
Lyons O'Dowd PLLC
P.O. Box 131
Coeur d'Alene, Idaho 83816

and if to Lessor:

Placer Mining Corp.
1 Mine Road
Kellogg, Idaho 83837

With a copy to:

James McMillan PLLC
415 7th Street #7
Wallace, Idaho 83873

Said addresses for receiving notices may be changed by either party upon five (5) days previous notice to the other party.

ARTICLE 26. INUREMENT. These presents shall inure to the benefit of and be binding upon the respective heirs, executors, administrators, successors and assigns of the parties hereto.

ARTICLE 27. ASSIGNMENT. The rights of either party hereunder may be assigned in whole or in part and the provisions hereof shall extend to their successors and assigns, but no change or division in ownership of the Bunker Hill Mine or the Lease Production Royalty or the Production Royalty, however accomplished, shall operate to enlarge the obligations or diminish the rights of either party under this lease. Lessee shall have the right to subcontract with others for the performance of exploration, development and mining work hereunder, subject to all of the terms of this lease, but no such subcontract shall relieve Lessee of its obligations to Lessor hereunder.

ARTICLE 27. CONSTRUCTION. Titles to the respective articles hereof shall not be deemed a part of this lease but shall be regarded as having been used for convenience only.

ARTICLE 28 The terms and rights of the lessor which are granted in the current LOI are to remain in effect through the term of this lease and after the exercise of the purchase option. The land package as described (i.e., Kurt Hoffman) in the current LOI Schedule ? shall remain in effect.

IN WITNESS WHEREOF, the parties hereto have executed this lease as of the day and year first above written.

B.H.
BDR

LESSOR

Placer Mining Corporation

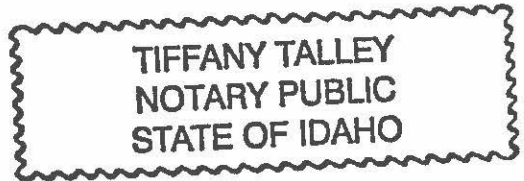
[Signature]
By Robert Hopper, President

STATE OF IDAHO)
) ss.
COUNTY OF SHOSHONE)

On this 17th day of August, 2017, before me, Tiffany Talley, the undersigned, a Notary Public in and for the State of Idaho, personally appeared Robert Hopper, known to me to be the President of Placer Mining Corporation, and whose name is subscribed to the within instrument, and acknowledged to me that he executed the same on behalf of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

[Signature]
Notary Public for Idaho
Residing at Shoshone County



My Commission expires 11/28/2020

LESSEE:

Liberty Silver Corp

By [Signature]
Bruce Reid, Chief Executive Officer

STATE OF IDAHO)
) ss.
COUNTY OF SHOSHONE)

On this 17 day of August, 2017, before me, Tiffany Talley, the undersigned, a Notary Public in and for the State of Idaho, personally appeared, John Ryan, BRUCE REID who stated to me to be the Vice President of Liberty Silver Corp., and whose name is subscribed to the within instrument, and acknowledged to me that he executed the same on behalf of said corporation.

BRUCE REID

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Tiffany Talley
Notary Public for

Residing at Boise County

My Commission expires 11/28/2020

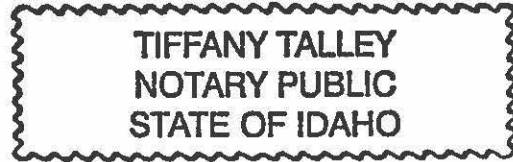


EXHIBIT A

INSERT PROPERTY DESCRIPTION

PROPERTY DESCRIPTION

PLACER MINING COMPANY TO LIBERTY SILVER CORP.

All mineral rights, surface rights, fee interests, and any other real property interests held by Placer, Robert Hopper, William Pangburn, or any other affiliate of Placer, and which real property interest is located in Township 47 North, Range 2 East, Boise Meridian; Township 48 North, Range 2 East, Boise Meridian; Township 48 North, Range 3 East, Boise Meridian; Township 49 North, Range 2 East, Boise Meridian; Township 49 North, Range 3 East, Boise Meridian and located in Shoshone County, Idaho, which includes, but is not limited to, the real property described herein.

Tax Parcel No. D0000-002-0300, Tax Parcel No. D0000-002-0550, Tax Parcel No. D-0000-002-0700, D-0000-002-0975, D0000-002-1400, D-0000-002-1500, D-0000-002-1900, D-0000-002-2100, D-0000-002-4725, D-0000-002-4800, D-0000-002-7300,

The SENE, NESE, Lot 1 (NENE), SENW, lying East of County Road and the West Half of the NE ¼ Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho

EXCEPT: Those portions of the subject property conveyed to Shoshone School Districts No.s 30 and 391 by deeds dated June 1, 1938 and recorded September 19, 1938 in Book 70, Deeds, at page 130; dated August 15, 1950 and recorded November 20, 1950 in Book 84, Deeds, at page 563 and recorded January 27, 1975 as Instrument No. 255179.

Tax Parcel No. 48N02E3675

SWNW Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho

Tax Parcel No. 49N02E341900

South ½ of the Northeast ¼ and the Southeast ¼ of the Northwest ¼ of Section 34, Township 49 North, Range 2 East, B.M., Shoshone County, State of Idaho

Tax Parcel No. 49N02E345000

That portion of Section 34, Township 49 North, Range 2 East, B.M., Shoshone County, State of Idaho lying South of the Coeur d'Alene River and North of the U.S. I-90 Right of way.

EXCEPT: County Airport

ALSO EXCEPT: NWSW and SWNW Section 34, Township 49 North, Range 2 East, B.M., Shoshone County, State of Idaho.

Tax Parcel No. 48N03E106700

Being a tract of land lying in the Southeast Quarter of the Southwest Quarter, and in the Southwest Quarter of the Southeast Quarter, Section 10, Township 48 North, Range 3 East, Boise Meridian, Shoshone County, Idaho, and being more particularly described as follows:

Using the Bunker Hill triangulation survey meridian and beginning at corner No. 1, a drill steel monument with a copper cap, 2 ins. x 2 ins., marked corner 1-SU, from whence the Southwest corner of said Southeast Quarter of the Southwest Quarter, a concrete monument marked W 1/16 cor., bears S.43°58.2'W., 518.15 ft. distant, and from whence, also, cor. No. 1 survey No. 2274 Monmouth lode bears S.34°41.3'E., 457.52 ft. dist.; thence

N.34°51.2'E., 349.44 ft. dist. to cor. No. 2; thence

N.89°58'W., 560 ft. dist., to cor. No. 3, which corner point falls on a steep, unstable, slope and from which point a witness corner, a drill steel monument with a copper cap marked W.C. cor. 3-SU, bears N.35°24.4'W., 33.14 ft dist.; thence

N.O°03'W., 660.00 ft. dist., to cor. No. 4, a drill steel with copper cap marked cor. 4-SU; thence

S.89°58'E., 1,454.12 ft. dist., to cor. No. 5, a drill steel monument with copper cap marked cor. 5-SU, on the westerly right-of-way boundary of the Big Creek road; thence

On and along said right-of-way boundary, S.38°34.1'W.,

552.72 ft. dist., to cor. No. 6, identical with a concrete monument with brass cap marked P.C. 45+41.10; thence

On a 2°00' curve to the left, the long chord of which bears S.35°38'W., 297.96 ft. dist., to cor. No. 7, identical with highway boundary P.T. 48+35.09 back (48+36.54 ahead) the monument of which has been obliterated; thence

Continuing on said right-of-way boundary S.32°39.5'W., 419.26 ft. dist., to cor. No. 8, a drill steel with copper cap marked cor. 8-SU; thence

N.57°20.5'W., 115.00 ft. dist., to cor. No. 9, a drill steel with copper cap marked cor. 9-SU; thence

S.32°39.5'W., 120.00 ft. dist., to cor. No. 10, a drill steel with copper cap marked cor. 10-SU; thence

N. 57°20.5'W., 222.41 ft. dist., to cor. No. 1, the place of beginning.

Tax Parcel No. D-0000-006-3960 – Assessed to Placer Mining Company

Being a tract of land situated in the NE 1/4 of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho, more particularly described as follows;

Beginning at the SE corner of Lot 2 whence the West ¼ Corner of Section 6 bears South 11°44'32" East 553.78 feet distant; thence

North 14°20'30" East, 106.64 feet; thence

South 70°17'45" West, 301.02 feet; thence

South 14°14'25" West, 90.00 feet; thence along a curve right, radius = 1088.37, the long chord bears South 69°06'13" East, 129.05 feet; thence

South 65°42'23" East, 173.96 feet to the point of beginning.

AND

Being a tract of land situated in the NE ¼ of Section 1, Township 48 North, Range 2 East, B.M. and in Section 6. Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

Beginning at the SE corner of Lot 1 whence, the West ¼ corner of Section 6 bears South 32°54'10" West, 504.22 feet distant; thence

North 15° East, 149.49 feet; thence

North 30° West, 73.01 feet; thence

North 76°06'48" West, 275.55 feet; thence

South 70°18'02" West, 95.30 feet; thence

South 14°20'30" West, 126.64 feet; thence

South 65°42'23" East, 57.45 feet; thence along a curve left, radius = 316.92, the long chord bears South 70°56'51" East., 47.03 feet; thence

South 74°35'32" East, 300.59 feet to the point of beginning.

The following additional mineral interests located in Shoshone County, Idaho:

MC0140, MC0162, MC0167, MC0268, MC0269, MC0346, MC0347, MC0348, MC0349, MC0350, MC0351, MC0352, MC0466, MC0467, MC0498, MC0500, MC0501, MC0528, MC0530, MC0531, and F00000020900

FEE PARCELS
PLACER MINING CO. AND/OR AFFILIATES TO LIBERTY SILVER

PARCEL 1: PANGBURN – "KELLOGG TUNNEL PARCEL" 22.3 ACRES – RPD0000001752A

Being a tract of land situated in the Northeast 1/4 of the Southeast 1/4 of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

Beginning at the East 1/4 corner of said Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho marked by a concrete monument and also the point of beginning, thence
South 87°28'34" West 165.92 feet; thence
South 30°34'59" West, 220.96 feet; thence
Along a curve right, radius = 40 feet, the long chord bears South 66°18'09" West, 75.71 feet; thence
North 78°22'26" West, 36.16 feet; thence
South 10°52'21" West, 204.04 feet; thence
North 75°18'39" West, 252.91 feet; thence
South 17°22'44" West, 1124.08 feet; thence
North 87°41'35" East, 1007.62 feet; thence
North 00°12'22" West, 1389.14 feet to the point of beginning.

PARCEL 2: PANGBURN – "MOTOR BARN PARCEL" - 3.46 ACRES – RPD07250000020A

Being a tract of land lying in the Northeast 1/4 and the Southeast 1/4 of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho and more particularly described as follows:

Beginning at a point from whence the East 1/4 corner of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho bears South 10°03'11" East, 409.83 feet distant; thence
South 21°46'03" West, 150.17 feet; thence
North 65°43'21" West, 407.49 feet; thence
South 01°10'02" West, 94.54 feet; thence
South 27°17'34" West, 90.00 feet; thence
South 39°32'35" East, 342.19 feet; thence
South 17°00'49" West, 108.69 feet; thence
South 09°45'56" East, 92.08 feet; thence
Along a curve right, radius = 40 feet, the long chord bears North 68°36'01" East, 43.86 feet; thence
North 30°34'41" East, 331.46 feet; thence
Along a curve right, radius = 100 feet, the long chord bears North 48°38'04" East, 62.13 feet; thence
Along a curve left, radius = 161 feet, the long chord bears North 16°29'47" East, 198.94 feet; thence
North 31°27'01" West, 84.16 feet to the point of beginning and sometimes referred to as Lot 2, Mine Short Plat No. 1 as shown on the official recorded plat thereof recorded as Instrument No. 350327, records of Shoshone County, State of Idaho.

FEE PARCELS
PLACER MINING CO. AND/OR AFFILIATES TO LIBERTY SILVER

PARCEL 3 - HOPPER PARCEL - "ROCK HOUSE" 6.52 ACRES - RPD00000011250A

ROCK HOUSE - Description of Property

Surface rights only on the following described property:

Being a tract of land situated in the SE 1/4 of the NE 1/4 of Section 1, T48N, R2E, B.M., more particularly described as follows:

Beginning at a point on the southerly right of way of McKinley Avenue whence the East 1/4 corner of Section 1 bears South 53 degrees 22' 13" East, a distance of 1312.27'; thence South 23 degrees 04' 39" West, a distance of 487.64'; thence South 61 degrees 03' 11" East, a distance of 644.95'; thence North 31 degrees 43' 07" East, a distance of 271.88'; thence North 17 degrees 17' 34" East, a distance of 90.06'; thence North 01 degrees 10' 02" East, a distance of 94.54'; thence North 63 degrees 13' 58" West, a distance of 287.15'; thence North 66 degrees 43' 00" West, a distance of 416.56'; thence North 13 degrees 04' 50" East, a distance of 104.13' to a point on the southerly right of way of McKinley Avenue; thence North 74 degrees 36' 24" West, a distance of 38.27', to the point of beginning. Containing 6.517 acres +/-.

PARCEL 4 - PLACER MINING CORP. "EAST SLIVER PARCEL" .261 ACRES - RPD00000064005A, located in Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho and more particularly described as follows:

A parcel of land situated in the Northwest Quarter of Section 6, Township 48 North, Range 3 East, B.M., Shoshone County, Idaho, and more particularly described as follows:

Using the Bunker Hill Triangulation System Meridian and coordinates and beginning at Corner No. 1, a point identical with the West Quarter Corner of said Section 6 (N9667.57, B687.41), and running thence N.0°42'20" E., 372.46 feet along the West boundary line of said Section 6 to Corner No. 2;

Thence S.20°36'E., 59.71 feet to Corner No. 3, a point identical with Corner No. 4 of the Washington Water Power Company (WWP Co.) tract as described in Document No. 302109, recorded November 2, 1982, records of Shoshone County, Idaho from The Bunker Hill Company to Bunker Limited Partnership, Parcel 28 of Exhibit "A", pages 12 and 13;

FEE PARCELS
PLACER MINING CO. AND/OR AFFILIATES TO LIBERTY SILVER

Thence S.69°24' W., 12.87 feet to Corner No. 4, identical with Corner No. 3 of said WWP Co. tract;

Thence S.14°20' E., 118.05 feet to Corner No. 5, identical with Corner No. 2 of said WWP Co. tract;

Thence S.2°23'30" W., 187.00 feet to Corner No. 6, identical with Corner No. 1 of said WWP Co. tract;

Thence S.80°00' E., 53.98 feet along the Southerly boundary line of said WWP Co. tract to its point of intersection with the South boundary line of the Northwest Quarter of said Section 6;

Thence S.88°55'25" W., 88.05 feet along said boundary line of said Section 6 Northwest Quarter to Corner No. 1 and place of beginning.

Placer Mining Corp. Bunker Hill Claims**Township 47N****Range 2 East****Section 1**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude</u>
3361	APEX NO.2 LODE	20.226	M.S. 2319, 3119
3361	APEX NO. 3 LODE	18.852	M.S. 2319, 3119
3361	GALENA	12.404	M.S. 2319, 3119

<u>TOTAL ACREAGE</u>	<u>51.482</u>
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<u>TOTAL NUMBER OF CLAIMS</u>	<u>3</u>
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Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 1**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude</u>
2840	CHECK	4.195 SURFACE	M.S. 1409, 1527, 2072, 2078, 2123, 2496, 2519
2921	SCELINDA NO. 1	17.316	N 1/2, S1/2, SEC. 1 T48N,R2E
2921	SCELINDA NO. 2	19.375	1.643 ACRES, BOOK 40, Page 560
2921	SCELINDA NO. 3	13.739	M.S. 2072
2921	SCELINDA NO. 4	10.38	M.S. 2072
2921	SCELINDA NO. 5	14.083	M.S. 2328
2921	SCELINDA NO. 7	17.477	N 1/2, S1/2, SEC. 1 T48N,R2E
2921	SCELINDA NO. 8	12.162	

<u>TOTAL ACREAGE</u>	<u>108.727</u>
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<u>TOTAL NUMBER OF CLAIMS</u>	<u>8</u>
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Placer Mining Corp. Bunker Hill Claims**Township 47N****Range 2 East****Section 2**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude</u>
3361	ANACONDA LODE	19.672	M.S. 2319, 3119
3361	APEX LODE	14.326	M.S. 2319, 3119
3361	BLUE BIRD LODE	8.401	M.S. 2319, 3119
3361	BLUE GROUSE LODE	20.661	M.S. 2319, 3119
3361	BOB WHITE	20.454	M.S. 2319, 3119
3361	BUTTE	17.963	M.S. 2319, 3119
3361	BUTTE FR.	5.253	M.S. 2319, 3119
3361	COUGAR	20.661	M.S. 2319, 3119
3361	HUCKLEBERRY NO.2	19.672	M.S. 2319, 3119
3361	LEOPARD	20.661	M.S. 2319, 3119
3361	MAC BENN	20.454	M.S. 2319, 3119
3361	MARTIN	20.661	M.S. 2319, 3119
3361	PHEASANT	20.661	M.S. 2319, 3119
3361	ROBBIN	20.454	M.S. 2319, 3119
3361	SONORA	20.663	M.S. 2319, 3119

TOTAL ACREAGE**270.617****TOTAL NUBER OF CLAIMS****14****Placer Mining Corp. Bunker Hill Claims****Township 48N****Range 2 East****Section 2**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
1412	REEVES	14.523	
1413	PACKARD	20.321	
1414	QUAKER	2.878	M.S. 790 AND SENATOR STEWARD UNSURVEYED
1503	AM. DANISH	12.238	
1628	ALFERD	13.326	M.S. 1503
1628	MAGGIE	13.872	M.S. 1503
1628	GOOD ENOUGH	11.886	M.S.1503
1633	PHILLIPPINE	13.74	
1723	LYDIA FR.	0.454	M.S. 1639, 1663
1723	MABEL	13.627	M.S. 1639, 1663
1723	MANILA	7.599	M.S. 1639, 1663
1723	O.K.	14.709	M.S. 1639, 1663
1723	O.K. WESTERN	14.587	M.S. 1639, 1663
1723	SUNNY	19.113	M.S. 1639, 1663
1723	WHIPPOOR WILL	8.909	M.S. 1639, 1663
1945	WILL LAMBERT FR.	17.346	
2067	SAXON	2.662	SURFACE M.S. 554, 764, 790, 1488, 1856, 1858
2507	BAND	10.844	M.S. 1639, 1858, 1945

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 2**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
3214	GOTH	11.161	M.S. 1413, 1414, 1858, 2551
3214	L-1	6.722	M.S. 1412,1503
3164	VENTURE	9.313	M.S. 1503,1663, 1945
3563	SILVER KING M.S.	3.327	
<u>TOTAL ACREAGE</u>		<u>243.157</u>	

TOTAL NUBER OF CLAIMS**22**

Placer Mining Corp. Bunker Hill Claims**Township 47N****Range 2 East****Section 3**

<u>M.S.#</u>	<u>Claim Name</u>	<u>Acreage Amount</u>
2856	BABY	17.46
2856	KEYSTONE	13.42
2856	VAN	11.95
2856	WOODRAT	20.141

<u>TOTAL ACREAGE</u>	<u>62.971</u>
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<u>TOTAL # CLAIMS</u>	<u>4</u>
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Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 3 East****Section 3**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
3423	CARBONATE	6.711	M.S. 554
3423	ENTERPRISE	3.616	
3423	GIANT	8.275	

<u>TOTAL ACREAGE</u>	<u>18.602</u>
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<u>TOTAL # CLAIMS</u>	<u>3</u>
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Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 3 East

Section 7

M.S. #

Claim Name

Acreage Amount

Exclude

Total Acreage Section 7

0

TOTAL NUMBER OF CLAIMS

0

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 3 East****Section 8**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
2869	MILO M.S.	4.986	
<u>TOTAL ACREAGE</u>		<u>4.986</u>	
<u>TOTAL # CLAIMS</u>		<u>1</u>	

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 9**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
3214	L-2	3.276	M.S. 1412, 1413, 1503, 1628, 2507
3214	L-3	13.245	M.S. 1412, 1413,
<u>TOTAL ACREAGE</u>		<u>16.521</u>	
<u>TOTAL # CLAIMS</u>		<u>2</u>	

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 10**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
2201	BROOKLYN	17.889	SUBJECT TO ROYALTY
2201	NEW JERSEY	18.477	"
2201	SCHUTE FR.	10.463	"
3389	PROMINADE	13.093	M.S. 2077, 2201, 2966, 3390
3389	SAM	20.541	"
3389	ZEKE	3.623	"
3389	PETE	20.643	
3390	Marblehead	19.333	M.S. 3389
3390	OLYMPIA	20.545	M.S. 2296, 3389
<u>TOTAL ACREAGE</u>		<u>144.607</u>	

TOTAL # CLAIMS**9****Placer Mining Corp. Bunker Hill Claims****Township 48N****Range 3 East****Section 10**

<u>M.S. #</u>	<u>CLAIM NAME</u>	<u>ACREAGE AMOUNT</u>	<u>EXCLUDE</u>
3423	Black Diamond	15.304	
3423	Gelatin	9.34	
3423	Rolling Stone	16.835	
3423	ENTERPRISE EXT.	19.658	
<u>TOTAL ACREAGE</u>		<u>61.137</u>	

TOTAL # CLAIMS**4**

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East

Section 11

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>		<u>Exclude Conflicts</u>
569	Oakland	4.59		M.S. 554
755	Ontario Fr.	1.626		
764	Carbonate SURFACE	6.551	SURFACE	M.S. 554, and Rail Road Easment. Status Unknown, Probably State of Idaho Rails to Trails.
790	Silver Casket SURFACE	15.77	SURFACE	
1041	Apex	1.928		M.S. 569
1041	Rambler	7.978		M.S. 569
1041	Tip Top	4.909		M.S. 569
1220	Butte	20.52		
1220	Cariboo	20.061		M.S. 1041
1220	Good Luck	19.676		
1356	Excelsior	3.113		M.S. 554 & 569
1357	No. 1	18.772		M.S. 1041
1357	No. 2	18.976		M.S. 1220
1357	No. 3	20.53		
1357	No. 4	19.951		
1357	No. 5	19.075	SURFACE	
1466	Deadwood	7.194		M.S. 1220
1466	Debs	18.183		M.S. 1229
1466	Hard Cash	20.489		
1619	Hamilton Fr.	13.233		
1633	Princess	5.9		See Inst. #208505, 208056, 208613
1639 AM	Royal Knight	13.871		M.S. 1357, 1681
1639 AM	Silver King	18.251		M.S. 1357, 1681 refer to #208505, 28506, 208613
1639AM	Legal Tender	16.324	SURFACE	M.S. 1357, 1681
1641	McLelland	4.616		M.S. 1357, 1639
1664	Harrison	9.02		M.S. 1639 AM
1715	(ninety-six) 96	12.017		
2368	Norman	4.198		M.S. 554, 764, 1356, 1357, 1041, 1639, 1681, 2067
2369	Grant	0.128		M.S. 554, 562, 569, 750, 755, 764, 1488, 2067, 2186, 2124, 2187, 2052
2583	Roman	1.443		M.S. 554, 764, 790, 1488, 1639, 1681, 2124, 2368, 2369, 1041
2583	Marion	1.058	SURFACE	M.S. 554, 755, 764, 790, 1414, 1639, 2067, 2368, 2369, 2124
2626	Maine	1.158		M.S. 512, 1633, 1638, 1639, 2548 Refer to inst. #208505, 208506, 208613

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East Section 11

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>		<u>Exclude Conflicts</u>
2583	Nellie	0.245		M.S. 554,562,569,750,1488,1526,1527 2052, 2072, 2078
2627	California	1.148	SURFACE	M.S. 790, 1414, 1639, 1858, 2067, 2507
2862	Chief No. 2	1.145		Refer to Inst.# 208505
2862	Sugar	2.969		Refer to Inst.# 208505
2862	Florence	14.204	SURFACE	See Inst. #208505, #208613
2966	Ethel	16.268		M.S. 1466 & 1619
2966	Katherine	14.617		M.S. 1357 & 2862
2966	Manchester	17.196		
2966	McRooney	4.634		M.S. 2201, 2862, 2960
2966	Stuard No. 2	20.464		Olympia Lode, Unsurveyed
2966	Stuard No. 3	20.659		
2966	Sullivan	16.74		Olympia Lode, Unsurveyed
2966	Switzerland	10.328		M.S. 2201, 2860, 2960
3111	Billy	16.707	SURFACE	M.S. 1357, 2862
3390	Nancy B.	2.498		M.S. 1466, 1619, 2080, & 2966
<u>TOTAL ACREAGE SECTION 11</u>		<u>510.931</u>		
<u>TOTAL # OF CLAIMS SEC.11</u>		<u>47</u>		

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East

Section 12

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acresage Amount</u>	<u>Exclude Conflicts</u>
546 AM.	TYLER	14.77	
550	EMMA	10.689	
551	LAST CHANCE	17.317	M.S. 550
554	SIERRA NEVADA	17.665	
562	VIOLA	10.569	
615	SKOOKUM	17.61	
629	BOTTOM DOLLAR FR.	0.607	SURFACE M.S. 580, 632
703	EMMA AND LAST CHANCE	2.197	SURFACE
755	ONTARIO	10.055	SURFACE
750	SAN CARLOS	7.17	
933	SOLD AGAIN FR.	8.221	
959	REPUBLICAN FR.	3.698	
1192	JOHANNESBURG	20.66	SURFACE
1220	JERSEY FR.	10.112	
1220	LILLY MAY	19.432	
1298	LIKELY	4.706	Miles LODE CLAIM
1325 AM.	HORNET	11.448	M.S. 562, 2072, CHEYENNE CLAIM
1325	KING	0.903	M.S. 562, 570
1328	PURITAN A.M.	10.225	SURFACE Excluding Survey 1192
1328	SAMPSON	7.112	M.S. 1192
1409	Omaha	17.05	SURFACE
1488	ARIZONA	10.399	M.S. 764
1526	WHEELBARROW	7.812	
1527	NEW ERA	12.652	
1830	STEMWINDER	7.075	M.S. 550, 551, 933
1882	UTAH	3.427	M.S. 550, 551, 579, 1830
2052	OVERLAP	0.895	M.S. 562, 569, 750
2072	BEE	11.591	M.S. 562, 1526 AM.
2072	COMBINATION	13.568	CONFLICT WARDNER TOWNSITE
2072	HAWK	20.606	
2072	IDAHO	12.922	M.S. 551, 1323, 1882
2072	IOWA	20.65	
2072	OREGON	10.081	CONFLICT WARDNER TOWNSITE
2072	SCORPION FR.	7.612	
2072	WASHINGTON	20.66	
2078	CHAIN	5.014	M.S. 1526, 1527, 2124
2123	LINK	17.346	SURFACE M.S. 1325, 1526, 1527
2124	SPUR	4.299	SURFACE M.S. 755, 764, 1488, 1856, 2067, 2123
2186	SIMS	0.191	M.S. 554, 562, 564 AM, 1488
2187	LINCOLN	0.082	
2249	CHEYENNE	8.431	M.S. 562, 1526
2328	FLAGSTAFF	12.847	

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East

Section 12

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acres Amount</u>		<u>Exclude Conflicts</u>
2429	CYPRESS	0.0346		M.S. 550, 1830, 430, 579, 604, 608, 581 & 1882
2452	HELEN MARR	2.279		M.S. 546, 550, 551, 771, 933, 959, 1126, 1325, 1325, 1830, 1882, 2072
2496	SPEAR	6.843	SURFACE	M.S. 2551
2509	SPOKANE	4.789		M.S. 1409, 1442, 2072
2511	KEY	0.287		M.S. 546, 562, 750, 1325, 1488, 1526, 1527, 2072, 2078, 2187, 2369
2511	QUEEN	0.376		M.S. 562, 615, 750, 1325, 1488, 1526, 2072, 2078, 2249, 2369, 1298
2511	TEDDY	0.002		M.S. 546, 551, 615, 750, 959, 1298, 1318, 1325, 1882, 2072, 2187, & 2452
2511	HEART	0.123		M.S. 551, 615, 771, 959, 1220, 1318, 2452
2511	JACK	1.082		M.S. 546, 562, 615, 750, 1298, 1325, 2072, 2187, 2249
2583	CLUB	0.088		M.S. 554, 569, 1041, 1356, 1488, 2124, & 2369
2583	DIAMOND	0.011		M.S. 554, 562, 569, 615, 750, 1298, 1356, 1488, 2052, 2186, 2187, 2369, & 2511
2583	ACE	0.073		M.S. 554, 755, 764, 1041, 2067, 2124, & 2369
2583	SPADE	0.006		M.S. 615, 1220, 1356, 1466
2584	BRADY	0.891		M.S. 546, 959, 1325, 1882, 2072, 2249, 2452 & 2511
2599	BOER	3.516		M.S. 550, 551, 1192, 1328, 2072
2599	BEN HERR	3.159	SURFACE	M.S. 550, 579, 580, 581, 608, 609, 614, 629, 632, 836, 837, 1916, 2065, 1882, 2429, 2432
2599	PHILIPPINE	7.655		M.S. 550, 703, 1192, 1328, 1702
2599	Grant	0.372		M.S. 554, 562, 569, 750, 755, 764, 1488
2611	NICK	15.516		M.S. 2081
2611	SHERMAN	0.604		M.S. 2081
2611	SIMMONS	0.391		M.S. 621, 1228, 1345, 2081
2611	ASSET	0.567		M.S. 1621 & 1345
2611	CHILDS	4.259		M.S. 1345, 1349
2654	KIRBY FR.	6.822		M.S. 551, 933
2654	McCLELLAN	8.907		M.S. 615
2654	MILES	15.846		M.S. 551, 933, 586, 615, 959, 1220
2654	PITT	0.809		M.S. 546 AM., 959, 1298
2921	FLAGSTAFF NO. 2	6.353		M.S. 2328, 2526
2921	FLAGSTAFF NO. 3	10.157		
2921	FLAGSTAFF NO. 4	17.783		M.S. 2328
<u>TOTAL ACREAGE</u>		<u>549.9766</u>		
<u>TOTAL # CLAIMS</u>		<u>72</u>		

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East

Section 13

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>		<u>Exclude Conflicts</u>
586 AM.	JACKASS	11.2		
579	BUNKER HILL	17.03	SURFACE	
580	SULLIVAN	13.088	SURFACE	M.S. 3390
581	IMPORTANT FR.	2.59	SURFACE	
604	PHIL SHERIDAN	11.034	SURFACE	M.S. 632, 836
607	REED FR.	11.41	SURFACE	
608	BUNKER HILL M.S.	4.129	SURFACE	
609	SMALL HOPES AM.	1.612	SURFACE	
614	LACKAWANA	16.525		
632	CHESTNUT	0.753	SURFACE	
836	TURKEY BUZZARD	0.559	SURFACE	
837	SNOWSLIDE FR.	0.059	SURFACE	M.S. 632
1085	SILVER	7.003	SURFACE	M.S. 2081
1227	MABUNDALAND	20.559		
1227	MASHONALAND	20.401		ALLA LODE CLAIM
1227	MATABELALAND	19.949		
1227	STOPPING	15.151		
1227	ZULULAND	20.517		
1228	ALLA	8.153		M.S. 1227 Stopping
1228	LACROSSE	9.361		
1228	MINERS DELIGHT	10.138		M.S. 614
1228	NO NAME	13.868		
1228	SULLIVAN EXT.	0.558		M.S. 619
1228	SUMMIT	9.897		M.S. 621
1229	ALLIE	18.287		
1229	BLUE BIRD	13.901		M.S. 586
1229	BOUGHT AGAIN	15.756		M.S. 1220
1229	JOSIE	20.651		
1229	MAPLE	1.687		
1229	OFFSET	0.257		M.S. 581
1229	ROOKERY	6.746		
1229	SUSIE	3.324		
1916	BUTTERNUT	1.259		M.S. 614
1916	HOMESTAKE	15.857		M.S. 604, 614, 629, 632, 836, 837, 1229, 2141
2065	TRIANGLE FR.	0.084	SURFACE	M.S. 580, 608, 609AM, 619, 622 1228
2081	ITO	6.456		M.S. 1229, 1466 & 1620
2081	BEAR	16.919		M.S. 1227 & 1229
2081	OYAMA	6.278		M.S. 1227, 1620
2250	Buckeye	10.634		M.S. 1228 & 1916
2432	HICKORY	0.001		M.S. 1229, 1916

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 13**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>		<u>Exclude Conflicts</u>
2432	SPRUCE FR.	0.017		M.S. 604, 614, 836, 1227, 1228, 1229, 1916, 2250
2452	HEMLOCK	0.0189		M.S. 579,581,586,604,771,933,1229
2587	FOSTER	20.659		
2587	PENFIELD	20.659		
2587	SLIVER	0.003		M.S. 2081
2587	DREW	19.483		M.S. 2081
2587	EDNA	12.204		M.S. 208, MIDLAND, N. MIDLAND
2587	EMILY GRACE	10.462		M.S. 2081
2599	KRUGER	2.502	SURFACE	M.S. 580, 581, 604, 608, 629, 632, 836 1085, 1229, 1916, 2065,2429, 2432
2587	MEDIUM	6.904		N. MIDLAND
2611	YALE	0.052		M.S. 2081, 1228
2611	HOUGH	13.407	SURFACE	M.S. 1085, 1192, 1345
2624	GUS	0.709		M.S. 1227, 1229, 1916, 2081, 2141, 2250
2624	ROY	0.038		M.S. 1227, 1229, 2081, 2141
2624	TRUMP	0.02		M.S. 1229, 1466, 2081
2646	AFRICAN	2.046		M.S. 1229, 1916, 2081, 2141
2975	HOOVER NO. 1	17.156		M.S. 2080, 2976
2975	HOOVER NO. 2	19.983		M.S. 2080
2975	HOOVER NO. 3	16.005		M.S. 2587
2975	HOOVER NO. 4	14.547		M.S. 2587
2975	HOOVER NO. 5	13.222		M.S. 2080
3470	LUCKY	17.864	SURFACE	M.S. 607 & 619
3471	BETA	13.973		M.S. 1227, 1916, 2250

TOTAL ACREAGE**605.5749****TOTAL # CLAIMS****63**

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East Section 14**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
1466	CARTER	17.003	
1466	COXEY	4.697	M.S. 1229
1466	NEVADA	12.602	
1466	HAMILTON	20.654	
1620	BERNIECE	19.278	
1620	MOUNTAIN KING	18.535	
1620	MOUNTAIN QUEEN	20.534	
1620	SOUTHERN BEAUTY	15.012	
1628	WAVERLY	17.757	
2077	K-21	20.661	M.S. 2696
2077	K-22	20.661	M.S. 2696
2077	K-30	20.3	
2077	K-31	20.646	
2080	K-1	20.515	
2080	K-2	20.515	
2080	K-3	20.661	
2080	K-4	20.658	M.S. 1620
2080	K-5	20.659	
2080	K-6	20.661	
2080	K-7	20.661	
2080	K-8	20.661	
2080	K-9	20.651	
2080	K-14	8.549	
2080	K-15	10.262	M.S. 2077
2080	K-24	7.176	M.S. 1620
2080	K-25	3.154	
2080	K-26	2.993	
2080	K-27	7.096	
2080	KANSAS	20.536	M.S. 1620
2077	K-10	20.608	
2077	K-16	20.646	

Placer Mining Corp. Bunker Hill Claims**M.S. #** **Claim Name**

2080 MISSOURI

2080 TEXAS

3390 PHIL

3390 BATTLESHIP OREGON

3390 CHARLEY T.

3390 MARGARET

3390 Lucia

Township 48N**Acreage Amount**

20.061

20.556

4.41

20.1

9.028

13.892

17.644

Range 2 East Section 14**Exclude Conflicts**

M.S. 1620

M.S. 1466, 2077, 2080, 2966

M.S. 2077

M.S. 2077 & 2080

M.S. 2080

M.S. 2966

TOTAL ACREAGE**620.693****TOTAL # CLAIMS****38**

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 3 East Section 15**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>
2274	OREGON NO. 2	20.66
2274	SILVER CORD	20.66
2274	MARYLAND	20.66
2274	MONMOUTH	20.66
2274	EVENING STAR	20.637
2274	EVENING STAR FR.	3.392
3298	SPRING	20.651

<u>TOTAL ACREAGE</u>	<u>127.32</u>
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<u>TOTAL # CLAIMS</u>	<u>7</u>
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Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East Section 15**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
2077	(Eighty-five) 85	20.508	
2077	IOWA NO. 2	20.647	
2077	K-11	20.508	
2077	K-12	20.508	
2077	K-13	20.654	M.S. 2077
2077	K-17	20.608	
2077	K-18	20.66	M.S. 2696
2077	K-19	20.534	M.S. 2696
2077	K-20	20.661	
2077	K-23	19.917	M.S. 2696
2077	K-28	18.063	
2077	K-39	10.469	
2077	MINNESOTA	17.491	
2077	MISSORI NO. 2	11.989	
2077	(Ninety-one) 91	20.256	
2077	(Ninety-two) 92	20.508	
2077	K-29	14.591	M.S. 2696

<u>TOTAL ACREAGE</u>	<u>318.572</u>
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<u>TOTAL # CLAIMS</u>	<u>16</u>
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Township 48N Range 3 East Section 16

<u>M.S. #</u>	<u>Claim Name</u>		<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
3015	QUEEN	Lies is Sec. 16	2.22	

TOTAL ACREAGE **2.22**

TOTAL # CLAIMS **1**

Township 48N Range 3 East Section 17

2204	GRANT	LIES IN SEC. 17	8	Only that portion west of the Ext. of W. endline of A-3 Lode, M.S 1347, M.S. 1349, 1359, 2203, 2540, 2611, 2870, 2915, 3013
3503	MOAT	Lies is Sec. 17	4.9	

TOTAL ACREAGE **12.9**

TOTAL # CLAIMS **2**

Township 48N Range 2 East Section 17

3503	CASTLE		1.606	M.S. 1347,1349,1359,2203,2540, 2611, 2070, 2915, 3013
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TOTAL ACREAGE **1.606**

TOTAL # CLAIMS **1**

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 3 East****Section 18**

<u>M.S. #</u>	<u>Claim Name</u>		<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
619	Rolling Stone	50%	15.093	M.S. 580
1228	East	50%	4.64	M.S. 609
1228	Iron Hill	50%	17.736	
1228	Ollie McMillin	50%	15.895	
1228	Schofield	50%	8.853	
1228	Bonanza Fraction	50%	4.439	
1345	Daisy	50%	17.74	M.S. 607,619,621,1228
2081	Black	50%	20.64	
2081	Brown	50%	20.248	M.S. 1228
2081	Sarnia	50%	12.967	M.S. 1228
2204	Last Chance		19.447	
2274	Timothy Fraction		0.586	
2611	Ox	50%	8.103	M.S. 1345
2611	Taft	50%	0.898	M.S. 1228,2081
3177	Monte Carlo No. 3	50%	13.868	
3177	Monte Carlo No. 5	50%	13.16	M.S. 1345 & 2611

Total Acreage Section 18 Claims**194.313****TOTAL # CLAIMS****15**

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 3 East

Section 19

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>
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3108	Midland	4.5
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3472	Spokane Central No. 5	20.65
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<u>TOTAL ACREAGE</u>		<u>25.15</u>
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<u>TOTAL NUMBER OF CLAIMS</u>		<u>2</u>
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Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 3 East Section 20**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
3472	SPOKANE CENTRAL NO. 1	18.633	M.S. 3291
3472	SPOKANE CENTRAL NO. 2	20.143	M.S. 3291
3472	SPOKANE CENTRAL NO. 3 FR.	18.756	M.S. 3291 S 29/48N/3E
3472	SPOKANE CENTRAL NO. 3	18.756	M.S. 3291
3472	SPOKANE CENTRAL NO. 4	20.297	

TOTAL ACREAGE**96.585****TOTAL # CLAIMS****5**

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 22**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
2077	K-32	11.082	
2976	ADATH	20.659	
2976	ALKYRIS	20.659	
2976	ANNA LAURA	20.659	
2976	ATLAS	20.659	
2976	ATLAS NO. 1	20.659	
2976	FRACTION	15.574	M.S. 2080
2976	GAY	3.348	M.S. 2080, 2077
2976	RED DEER	20.654	M.S. 2080
2976	SETZER	13.8	M.S. 2080
3096	ARMY	19.179	M.S. 2077, 2696, 2976
3096	NAVY	5.879	M.S. 2077, 2696, 2976

TOTAL ACREAGE**192.811****TOTAL # CLAIMS****11**

Placer Mining Corp. Bunker Hill Claims**Township 48N****Range 2 East****Section 23**

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
2080	K-33	14.448	M.S. 2077
2080	K-34	18.554	M.S. 2077
2080	K-35	10.453	
2080	K-36	20.128	
2080	K-37	20.661	
2080	K-38	20.661	
2977	LESLEY	20.312	
2977	LESLEY NO. 2	20.659	
2977	LESLEY NO. 3	20.659	
2977	LITTLE ORE GRANDE	20.659	
2977	NORTH WELLINGTON	20.639	
2977	ORE GRANDE NO. 1	20.312	
2977	ORE GRANDE NO. 2	20.659	
2977	ORE GRANDE NO. 3	20.659	
2977	ORE GRANDE NO. 4	20.659	
2977	ORE GRANDE NO. 5	20.458	
2977	WELLINGTON	16.91	EAST PINE LODGE
3097	ORACLE	10.963	M.S. 2415, 2977
3097	ORBIT	20.661	
3097	OREANO	19.64	
3097	ORE SHOOT	12.173	M.S. 2976
3097	ORIENT	13.451	BOUTAN LODGE
3097	ORIENTAL	9.262	M.S. 2976
3097	ORPHAN	9.422	M.S. 2977
3097	ORPHEUM	20.458	M.S. 2976

TOTAL ACREAGE**443.52****TOTAL # CLAIMS****24**

Placer Mining Corp. Bunker Hill Claims

Township 48N

Range 2 East

Section 24

<u>M.S. #</u>	<u>Claim Name</u>	<u>Acreage Amount</u>	<u>Exclude Conflicts</u>
2081	S-9	20.641	
2081	S-10	20.64	
2587	"A"	20.532	MIDLAND NO. 3
2587	"B"	20.633	
2587	"C"	20.633	
2587	"D"	19.725	
2587	"E"	19.75	
2587	"F"	15.547	M.S. 1620, 2080
2587	K-40	3.084	M.S. 1620, 2080
2587	LILLY	20.637	
2587	MISSING LINK	14.456	MIDLAND NO. 5
2587	NO. 1	19.67	MIDLAND CLAIMS
2587	NO. 2	20.633	
2587	PEAK	20.433	MIDLAND CLAIMS
2587	SNOWLINE	19.207	LIES IN SEC. 25 MIDLAND NO. 5
2587	YREKA NO. 22	20.415	
3108	MIDLAND NO. 1	17.777	M.S. 2587
3108	MIDLAND NO. 6	18.518	M.S. 2587
3108	MIDLAND NO. 3	20.658	
3108	MIDLAND NO. 4	19.22	
3108	MIDLAND NO. 5	13.621	
3108	MIDLAND NO. 7	12.812	M.S. 2081, 2587
3108	MIDLAND NO. 8	11.436	M.S. 2587
3108	NORTH MIDLAND	13.924	EDNA LODGE
<u>TOTAL ACREAGE</u>		<u>424.602</u>	
<u>TOTAL # CLAIMS</u>		<u>23</u>	
<u>TOTAL # CLAIMS</u>		<u>0</u>	

Placer Mining Corp. Silver Belt Claims

Township 48N

Range 3 East

Section 35

M.S. # **Claim Name**

3361 LYNX

Acreage Amount

20.661

Exclude Conflicts

M.S. 2319, 3119

TOTAL ACREAGE

● **20.661**

TOTAL # CLAIMS

1

PLACER MINING CORP.
BUNKER HILL CLAIMS

TOTAL ACREAGE AND CLAIM NUMBERS BY SECTION

SECTION	TWN	RNG	ACREAGE	#CLAIMS
1	47N	2EAST	51.482	3
1	48N	2EAST	108.727	8
2	47N	2EAST	270.257	14
2	48N	2EAST	243.157	22
3	47N	2 EAST	62.891	4
3	48N	3 EAST	18.602	3
7	48N	3 EAST	0	0
8	48N	2 EAST	4.986	1
9	48N	2 EAST	16.251	2
10	48N	2 EAST	144.607	9
10	48N	3 EAST	61.52	4
11	48N	3 EAST	510.931	47
12	48N	3 EAST	549.977	72
13	48N	2 EAST	607.1152	63
14	48N	2 EAST	620.693	38
15	48N	2 EAST	318.5801	16
15	48N	3 EAST	127.32	7
16	48N	3 EAST	2.22	1
17	48N	3 EAST	12.9	2
17	48N	2 EAST	1.606	1
18	48N	3 EAST	194.313	50% 15
19	48N	3 EAST	25.15	50% 2
20	48N	3 EAST	96.585	5
22	48N	2 EAST	192.11	11
23	48N	2 EAST	443.498	24
24-25	48N	2 EAST	424.602	23
35	48N	2 EAST	20.661	10
TOTAL ACREAGE			<u>5130.741</u>	
TOTAL # CLAIMS				<u>407</u>

**MINING CLAIMS TO BE OWNED EQUALLY BY
LIBERTY SILVER CORP AND PLACER MINING CORPORATION**

Liberty Silver Corp and Placer Mining Corporation will own an equal 50% ownership interest in the 15 claims on the West boundary of the Silver Ridge block. The claims are as follows:

Rolling Stone
East
Iron Hill
Ollie McMillan
Schofield
Daisy
Bananza Fraction
Black
Brown
Sarnia
Ox
Taft
Monte Carlo #3
Monte Carlo #5
Midland

EXHIBIT B

INSERT AREAS TO BE ACCESSED/MINED BY PLACER DURING LEASE PERIOD

The following areas may be accessed and mined by Placer Mining Corporation during the lease period and are excluded from the purchase option:

1. The Crystal Vug Stope,
 2. The East Hanging Wall target of the historic Caledonia Mine, and
 3. The Silver Ridge Claims.
-

B.H.
BML

Amendment to Lease and Option to Purchase of August 17, 2017 between Liberty Silver Corp and Placer Mining Corporation.

- 1) Liberty Silver Corp. will pay \$15,000 to Avista utilities account # 1202252117 no later than Wednesday 10/18/2017, the commercial number is 1-800-227-9187.
- 2) Liberty Silver Corp. will deposit \$35,000 to Northwest Analytical Services LLC, no later than 10-18-17. Wire instructions for this account have been provided. This payment is to be credited towards the purchase price of the mine.
- 3) Liberty Silver Corp. agrees to reimburse for the Care and Maintenance labor costs incurred by Placer Mining Corporation for the month of November and such amount will be due Dec 1st. 2017.
- 4) Liberty Silver Corp. will pay the Avista Utility total amount due on Dec 1st. 2017.
- 5) Article 21 on page 8 of the signed lease is amended to state that that Liberty Silver Corp. will continue it's scheduled EPA water treatment quarterly payments and Avista Utilities payments as it's sole responsibility and furthermore, scheduled monthly payments for the Mine KT Maintenance Crew. The current Mine KT Maintenance Crew along with Robert Hopper, Thomas Hopper, and Dave Kriedeman will hereafter be known as the Care and Maintenance crew (The CM Crew) and the compensation will be \$100,000 per month to be paid directly to Northwest Analytical Services, LLC which is the company that has been appointed by Placer Mining Corporation to manage its business affairs. Each care and Maintenance installment is due in advance no later than the first of each month. This C/M compensation is separate of the \$100,000 per month lease payment and does not get credited toward the mine purchase price.
- 6) All existing Care and Maintenance employees will remain on the payroll and Managed by Northwest Analytical Services LLC. At this time and subject to change, these personnel include Tom Hopper, Bob Hopper, Dave Kriedeman, James Hilliard, Calvin Walker, Aaron Peterson, Ed Peterson, Mitch Brower Jr. Charles Assels, and Mitch Brower Sr. NWAS will be responsible for their own

D.K

insurance, payroll, taxes, workmen's compensation and other withholdings. The \$100,000 C/M budget only includes labor and its associated costs and other expenses such as fuels, tires, and current rolling stock maintenance. it does not include pumps, timbers, electrical, rail or any other underground expense that may be incurred and will be billed to Liberty Silver Corp. separately.

7) PMC/NWAS reserves the right to assist in surface subcontracting that Liberty has planned by utilizing our C/M team for labor portions of such jobs, for example: If you are installing fresh water lines, roofing or electrical, our team can assist in the labor which it is believed will greatly decrease the Liberty Silver cost in the estimates you receive.

8) Each employee and/or contractor that Liberty Silver hires, either surface or sub surface will be required to provide proof of MSHA training,

9) PMC/NWAS will continue to occupy the two office spaces that are currently being used at the main office until spring when the safety building offices are remodeled, at that time, we will relocate to better accommodate Liberty Silver Corp. and their team.

9) PMC/NWAS will reserve the right to continue to co-occupy the lower dry until all remodel work has been completed that Mark Hartman has planned, at this time, we can relocate to better accommodate Liberty Silver. It is recommended The Women's dry which was originally at the far north end of the existing dry or the old corporate dry in the main office be utilized for the women's dry.

10) Major Payment Timing

12-1-17 \$200,000 lease becomes due for Nov and Dec of 2017; \$100,000 C/M payment to NWAS is due; \$500,000 bonus payment that was due on 11-15-2017; and any expenses from #3 above needs to be reimbursed.

12-15-2017 \$500,000 bonus payment is due.

1-1-18 \$300,000 lease payment to PMC for the first quarter of 2018 is due; \$100,000 C/M to PMC is due as well as the 1st of every month thereafter.

D.K

All other terms of the lease and option to purchase signed on August 17 will remain in effect for the duration of said agreement.

Signed,

A handwritten signature in cursive script that reads "Dave Kriedeman".

Dave Kriedeman

By direction of Robert Hopper
Placer Mining Corp.

Date: 10/17/17

Signed,

A handwritten signature in cursive script that reads "John Ryan".

John Ryan
Director

Liberty Silver Corp.

Date: 10/17/17

**CLARIFICATION AND SECOND AMENDMENT TO LEASE AND OPTION TO PURCHASE BETWEEN
LIBERTY SILVER CORP., n/k/a BUNKER HILL MINING CORP. AND PLACER MINING CORPORATION**

WITNESSETH: It is hereby agreed that the Lease and Option to Purchase Agreement, made and entered into on August 17, 2017, as amended on October 17, 2017, by and between Liberty Silver Corporation, now known as Bunker Hill Mining Corp., and Placer Mining Corporation (hereinafter "Parties"), is hereby CLARIFIED and/or FURTHER AMENDED to provide as follows:

1. The following items are hereby EXPRESSLY EXCLUDED from the Lease and Option to Purchase Agreement, and any other agreement that may be in existence between the Parties, and the Parties hereby agree that the following items are now, and were always, intended to be excluded from the same:

- a. Machine shop parcel, as more particularly described in Exhibit 1, attached hereto and incorporated herein by reference, including the building, milling equipment and personal property located upon the parcel and within the building;
- b. All unmilled ore on the deck, estimated to be 7,500 tons; and
- c. All residual lead/zinc ore mined and broken, but not removed from, the Bunker Hill Mine.

2. All other provisions of the August 17, 2017 Lease and Option to Purchase and October 17, 2017 Amendment thereto, not directly affected by this Amendment and Clarification shall remain in full force and effect.

DATED this 30th day of January, 2018.

PLACER MINING CORPORATION,

By: 

Robert Hopper, President

DATED this 30th day of January, 2018

BUNKER HILL MINING CORP.

By: 

Howard Crosby, Vice President

By: 

Lukas D. O'Dowd, Attorney-in-fact for
Howard Crosby, VP
Bunker Hill Mining Corp.

EXHIBIT 1

Excluded Machine Shop Parcel (Mill Site Parcel) Description

KELLOGG MINE PLANT SHORT PLAT NO 1 LOT 3

Parcel Number: RPD07250000030A

Acres: 3.83

Legal Description:

Being a tract of land situated in the Northeast 1/4 of the Southeast 1/4 of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

Beginning at a point whence the East 1/4 corner of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho bears North 59°22'09" East, 395.37 feet distant; thence

Along a curve left, radius = 40 feet, the long chord bears South 15°24'18" West, 27.50 feet; thence

North 78°22'26" West, 36.16 feet; thence

South 10°52'21" West, 204.04 feet; thence

North 75°18'39" West, 252.91 feet; thence

North 02°48'24" West, 383.22 feet; thence

North 31°43'07" East, 271.88 feet; thence

South 39°32'35" East, 342.19 feet; thence

South 17°00'49" West, 108.69 feet; thence

South 09°45'56" East, 92.08 feet to the point of beginning and sometimes referred to as Lot 3 Mine Plant Short Plat No. 1.

SECOND AMENDMENT TO LEASE AND OPTION TO PURCHASE - Exhibit 1

Lessor Initials: B. H.

Lessee Initials: HC
by Lukas D. O'Daniel
Attorney-in-Fact

LIMITED SINGLE-TRANSACTION POWER OF ATTORNEY

By this instrument, the undersigned, Mr. Howard Crosby, a citizen of the United States of America, Executive Vice President, Bunker Hill Mining Corp. (formerly Liberty Silver Corp.), hereby designates, constitutes and appoints Lukas D. O'Dowd as Bunker Hill Mining Corp.'s Agent in the State of Idaho as the true and lawful attorney-in-fact ("Attorney-in-fact"), to act in the Bunker Hill Mining Corp.'s name, place and stead with authorization and general authority to do the following:

A. To negotiate and agree to the terms of the Clarification and Second Amendment to Lease and Option to Purchase between Bunker Hill Mining Corp. and Pacer Mining Corporation.

B. To appear and attend for Bunker Hill Mining Corp. in person the meeting with Pacer Mining Corporation whereby the said Clarification and Second Amendment to Lease and Option to Purchase is to be executed;

C. To enter into, execute by signing and deliver on Bunker Hill Mining Corp.'s behalf, the Clarification and Second Amendment to Lease and Option to Purchase and any agreements, contracts, covenants, and other instruments, undertakings or agreements necessary to effectuate the Lease Amendment;

D. This Power of Attorney shall remain in full force and effect and be binding until 11:59 p.m. on February 8, 2018, or until written notice of its revocation.

E. I grant to Attorney-in-fact full power and authority to perform all acts authorized herein to be done in and about the described matter as I could do if personally present.

F. I am fully informed as to all of the contents of this Limited Single-Transaction Power of Attorney and understand the full impact of this grant of powers to Attorney-in-fact.

G. The meaning and effect of this power of attorney is determined by the laws of the state of Idaho. A photocopy or electronically transmitted copy of an original power of attorney has the same effect as the original.

Dated this 27th day of January 2018.


Howard Crosby, Executive Vice President
Bunker Hill Mining Corp.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of Riverside

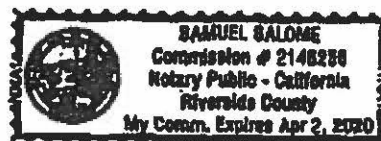
On this 27th day of January, 2018, before me, Samuel Salome, personally appeared, Howard Crosby, who proved to me on the basis of satisfactory evidence to be the Executive Vice President of Bunker Hill Mining Corp., and whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature 

(Seal)



Appendix 2

KELLOGG MINE PLANT SHORT PLAT NO 1 LOT 3

Parcel Number: RPD07250000030A

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Being a tract of land situated in the Northeast 1/4 of the Southeast 1/4 of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

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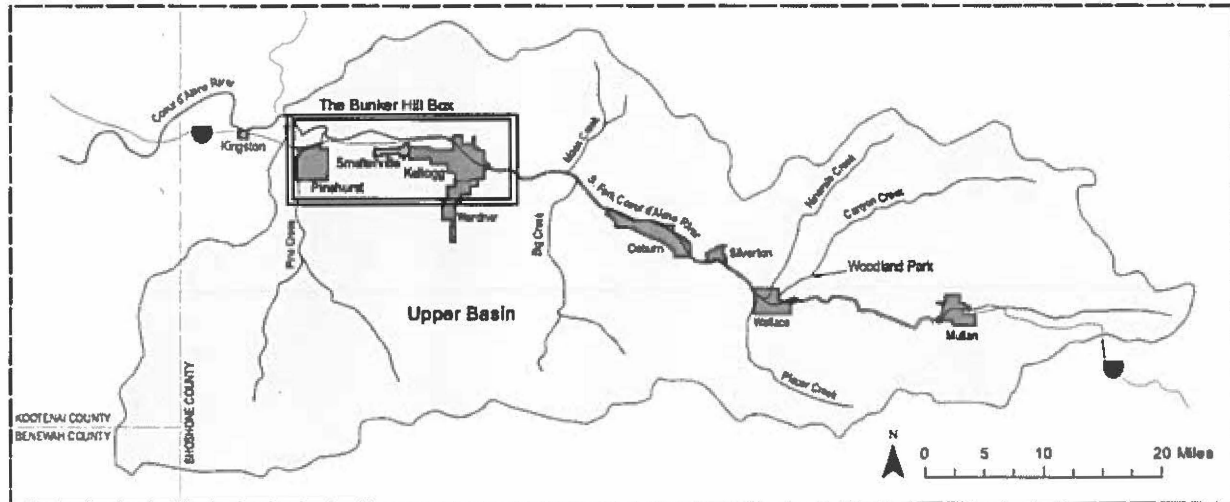
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Appendix 3



The Site, for purposes of this settlement, is depicted as “The Bunker Hill Box” on this map.

Appendix 4

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Reed Landing Flood Control Project

Operations and Maintenance Manual

Bunker Hill Superfund Site

Kellogg, Idaho



**Reed Landing Flood Control Project
Operations and Maintenance Manual
Bunker Hill Superfund Site
Kellogg, Idaho**

Revised: December 20, 2000

Prepared by: U.S. Army Corps of Engineers – Seattle District

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Section 1.0 General

Contaminated mine tailings and sediments from the Bunker Hill mining operation were stockpiled behind an unstable timber crib at Reed Landing on Milo Creek at the Bunker Hill Superfund Site. Flood events that exceed the existing creek bypass system result in water flowing over Reed Landing and downstream to the towns of Wardner and Kellogg. The floodwaters transport contaminated sediments and tailings to inhabited areas along the lower reaches of Milo Creek. The timber crib had already failed and may be a safety hazard under certain flood conditions. The purpose of the Reed Landing flood control project is to prevent large-scale downstream migration of contaminated tailings and sediments that will result from hydrological conditions that exceed the capacity of the existing Milo Creek 54-inch diameter high-density polyethylene (HDPE) pipe conveyance system, installed by the State of Idaho Bureau of Disaster Services (BDS). The project consists of six basic features, designed to handle a 100-year flood event (800 cubic feet per second (cfs) at Reed Landing):

- a. Two debris trashracks upstream of the existing Reed structure
- b. A debris basin upstream from Reed Landing
- c. A channel entrance with trashrack (note that the BDS system also includes an intake at the channel entrance that leads to a buried BDS pipeline sized to handle up to a 3-year flood event)
- d. A concrete channel across the Reed Landing fill
- e. A stilling basin at the base of the landing
- f. A rock-lined channel downstream of the stilling basin to the upstream end of the existing BDS flood control project

The purpose of this Operation and Maintenance Manual (O&MM) is to present information on project operation and maintenance (O&M) and is used as a guide for the local flood control authority as they operate and maintain the project after they take ownership of the project. The U.S. Army Corps of Engineers (USACE) – Seattle District will operate and maintain the Reed Landing flood control project, on behalf of the U.S. Environmental Protection Agency (EPA) Region 10, until the project is transferred to the local flood control authority.

Section 2.0 Authority

Flood control facilities on Milo Creek at Reed Landing were constructed under the authority provided to EPA Region 10 under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

Section 3.0 Location

Milo Creek is located in Shoshone County, Idaho in and near the towns of Wardner and Kellogg, where it drains into the South Fork of the Coeur d'Alene River. Reed Landing is located approximately 0.5 miles south of Wardner in Milo Gulch.

Section 4.0 Pertinent Information

Log structures used to support mining facilities at Reed Landing in the Milo Creek drainage above the town of Wardner, Idaho were a source of serious concern to residents in the lower valley. Failure of the structures could have created major hazards to workers in the area and to homes, schools, and businesses located downstream. During 1998 and 1999, the Seattle District U.S. Army Corps of Engineers performed a number of evaluations of the log crib structures involved and found the concerns expressed by the residents had validity. As a result, the questionable structures were removed and a flood-water bypass system was installed through the Reed Landing area to function in concert with a flood control system recently completed through the central portion of Wardner to prevent potential downstream disasters during Milo Creek peak flow periods. Construction was completed in 2000.

If the BDS Milo Creek System is operated and maintained by a different entity than the entity that operates and maintains the Reed Landing flood control project, it will be necessary for those two entities to coordinate activities. Issues that would need to be resolved may include "Who will maintain the channel entrance and intake grizzlies," since the BDS and USACE flood control projects have intakes next to one another at the Corps channel entrance.

The closest weather gage is located at Kellogg, Idaho whose period of record runs from 2/1/1905 to 12/31/1999. The average annual temperature is 47°F with extremes being as high as 111 (8/5/1961) and as low as -36°F (12/30/68). An average of 151 days a year dip below the freezing level (32°F). The average total precipitation is 30.73 inches with the maximum 1-day storm occurring at this station on 12/9/87 when 4 inches of precipitation fell. The average snowfall is 54.4 inches per year with a maximum of 124.3 inches occurring in 1996. The gage is located at an elevation of 2300 feet, which probably underestimates the precipitation and snowfall and overestimates the temperature at the actual project site that is at 3100 feet.

There are no stream gages on Milo Creek. The Milo Creek basin at Reed Landing drains 2.22 square miles. Robert Brown of the Corps of Engineers estimated the 100-year thunderstorm flood to be 800 cfs by utilizing the Placer Creek frequency curve and the winter rain-on-snow flood at 485 cfs using a combination of a prorated frequency curve from Placer Creek and a HEC-1 watershed model.

Section 5.0 Construction History

Construction on the began in 1999 and was completed in 2000. A summary of the changes from the design are summarized in the following paragraphs. The dates listed are the dates the changes in scope were requested by the contractor.

- 12/2/1999 – The drop structure was constructed with an additional three feet of height and five feet of length along the channel centerline, to allow the structure to better tie into the existing ground at the structure's location, thus providing greater stability. The length of the grouted riprap on the downstream side of the drop structure was increased from 25 to 40 feet, to accommodate the increased energy from the water that will fall from the higher drop structure.

- 12/7/1999 – Two access roads were constructed, one to provide access to the upstream side of the northern trash rack structure, and the other to provide access just upstream of the intake structure at Station 17+50.
- 12/7/1999 – A layer of 16 ounce non-woven geotextile was placed under the geomembrane liner in the debris basin upstream of the intake structure at Station 17+50, to prevent punctures of the geomembrane liner. The geotextile was also placed on top of the liner in the invert of the channel where grouted riprap was placed, to protect the liner from the riprap that is placed directly on the geomembrane. The geotextile was not needed downstream of the grouted riprap due to a bedding layer that was included in the original design.
- 12/20/1999 – A 12-inch culvert was installed under the abutments to provide access to the bridge located at Stations 12+45 to 12+65. By installing the culvert, placement of backfill along the bridge was eliminated.
- 12/27/1999 – A quarry-spalls lined ditch (2(H):1(V) side slopes) was installed on the west side of the concrete channel from Station 12+45 to 8+65, to convey surface water flows from the surrounding drainage area to the rock lined ditch. The ditch was lined with a geotextile prior to placing the spalls. Portions of the ditch fall at 32% and 44% slope, so the spalls are necessary to prevent erosion during heavy rainfall events.
- 1/26/2000 – Jersey barriers were installed along the south access road to meet MSHA requirements.
- 1/27/2000 – A culvert under the Saddle Road (approximately 750 feet west of the Sweeney adit) was replaced due to its poor condition and problems with allowing storm water to pass. The culvert was replaced with a piece of 12-inch HDPE pipe.
- 1/27/2000 – A French drain system was installed at the east and west sides of the Stilling Basin backfill to capture and route groundwater flows to the rock lined ditch. Seventy linear feet of 8-inch perforated corrugated polyethylene pipe was installed on each side of the Stilling Basin. The pipe was embedded with drain gravel and wrapped in geotextile.
- 2/2/2000 – A six foot high chain link fence was installed along the length of the concrete channel and along the cut-off walls at the entrance structure (1660 linear feet total), to address safety concerns related to the potential for humans or animals to fall into the channel.

Section 6.0 Project Performance

The Reed Landing overflow channel and entrance are sized to handle a discharge of 800 cfs with allowance for a reasonable amount of freeboard. In order to provide some additional allowance for floods in excess of the 100-year event, the overflow channel is sized to convey 1000 cfs but with less than ideal freeboard. Additionally, the debris basin is designed to handle a 50-year event debris load. If these facilities are not maintained or a flow event exceeds the designed discharge, the flow could exceed the capacity of the existing downstream Milo Creek Project 54" HDPE pipe conveyance system. This will allow flood waters to transport contaminated sediments and tailings to inhabited areas along the lower reaches of Milo Creek.

Section 7.0 Operation, Maintenance and Inspection

The Reed Landing Flood Control Project is an overflow channel to contain the contaminated runoff that exceeds the current channel capacity. The main operational elements for the project, therefore, are in the maintenance and inspection of the facility. This section details these elements.

7.1 Project Plans

Location, sections, and details of the Bunker Hill – Reed Landing Drainage Enhancement Project are shown on the as-built drawings (Enclosure 1).

7.2 General Notes on Maintenance

- a. The need for thorough inspection before each flood season and after each high-water event is very important. A checklist for inspections is provided for use by the project operator (Enclosure 2). Repairs and cleanup, if needed, will be made as soon as a problem is found to prevent accelerated damage during the next high-water stage. Debris which may impede flow through the project structures will be removed. The growth of trees and brush along the channel banks will be maintained within the general configuration of the project plantings since unrestricted vegetation can affect bank stability, impede inspection and access to channel banks, and impair hydraulic capacity of the channel.
- b. The location of water, sewer, and gas lines within the project will be determined before any maintenance measures or repairs are made.
- c. Improvements will be inspected to see that all construction is in accordance with standard engineering practice.
- d. Maintenance measures or repairs that are deemed necessary will be promptly taken or made.

7.3 Emergency Repairs

Emergency repairs may be required during high-water stages. These repairs are independent of those that may be required as a result of routine inspections referred to in 7.4 and 7.5. Potential problem areas to be aware of during high-water periods are described below.

- a. Debris Basin. The greatest threat of failure is at the debris basin from fluctuating water levels causing erosion or sloughing. In the event of any erosion, the use of large rock is required to prevent further damage. If postflood inspection reveals that the emergency repairs were not adequate for bank stabilization, permanent repairs will be made using materials of adequate size. Large quantities of floatable material may impede flow through the debris barrier and removal of some material may be required.

- b. Channel: Be prepared to remove any floating debris which could potentially block the bridge if debris bypasses the barrier.

7.4 Debris Basin Operation and Maintenance

a. General. Maintenance consists of debris removal and cleaning of drain holes in the grouted section and the concrete drop structure. Debris and gravel removal to original construction contours should be accomplished to the maximum extent possible through careful use of power equipment. Operating personnel must exercise caution to prevent damaging the basin sides or riprap during debris removal. Debris removal by hand may be required in some areas to avoid damage. If the grouted riprap in the vicinity of the debris basin is damaged either during the flood or during cleanup, immediate repair is necessary to prevent streambed degradation. The grouted riprap will be repaired by replacing damaged rock and grout, then filling the voids between rocks and existing grout. New grout will give adequate bond to existing grout and rocks to provide a solid impervious mass that will strongly resist any eroding action of the flow of water. Repair of riprap and grout will be done "in the dry" or in nonflowing water. Aggregate for grout will be ¾-inch maximum conforming to size 67, ASTM C33. Grout strength will be 3,000 pounds per square inch (p.s.i.) at 28 days, except if type III cement is used, the 3,000 p.s.i. strength will be reached in 7 days. Air content will be 6 percent plus or minus 1 percent. Debris accumulation in the debris basin following any high-water event must be removed if it exceeds 10 percent (300 c.y.) of the basin capacity. Full basin capacity must be provided no later than October 1 and May 1 of each year.

b. Trashracks. After each flood event, immediately prior to the flood season and at other times as required, remove debris lodged against trashracks, being careful not to damage racks in the process. Trashracks will be inspected for damage and scars to the paint. Paint surfaces damaged such that the prime coat or metal surface is exposed will be repaired as follows:

- (1) Primed surfaces will be abraded by sanding or scrubbing with a metal wire brush, then cleaned by removing all dirt and dust. Primed surfaces will be given a finish coat as per manufacturer's recommendations.
- (2) Metal surfaces will be sanded clean to a grade approaching uniform near white metal, then cleaned by removing all dirt and dust. Within 8 hours after sanding and cleaning exposed metal, surfaces will be given a prime coat as per manufacturer's recommendations. The finish coat will be applied after the prime coat as per manufacturer's recommendations.
- (3) Painted concrete surfaces that have been damaged will be repaired by removing all dirt, dust, efflorescence, or other foreign substances by sanding or scrubbing with a metal wire brush and then applying a final coat.

(4) Application of primer and finish coatings will be in strict accordance to manufacturer's recommendations for hand brushing. Primer and finish coatings will be as manufactured by United Coatings, Inc., 1130 Sprague Avenue, Spokane, Washington 992202, or equal. Primer for steel will be No. 302 and for concrete, Unitite Clear sealer. Finish will be Elastuff 504, standard gray color.

c. City Water Supply Debris Removal Facility. The operation and maintenance of the upstream City Water Supply Debris Removal Facility is needed to ensure that it retains its capacity to remove 1100 cubic yards of material.

7.5 Channel Operation and Maintenance

a. Entrance Trashrack. Follow same operation and maintenance guidelines set in section 4.4b.

b. BDS's 54-inch Diameter HDPE Pipe. At least biannually, inspect the pipe for settling or signs of damage. Prior to flood season and after every flood event, the pipe should be inspected and cleared of any debris.

c. Joints.

(1) Expansion, Contraction, and Construction Joints. All joints within the channel, drop structure, and debris barrier will be inspected for damage, wear, and missing sealant material. Sealant material found to be damaged or missing will be repaired before damage to the concrete structure occurs.

(2) Cleaning. All joints found having damaged, missing sealant material will be thoroughly cleaned prior to the replacement or repair. Grooves will be free of foreign material or dust created by cleaning. Care will be taken during the cleaning process so as not to damage the bond breaker. If bond breaker is damaged, it will be replaced prior to installation of new seal material.

(3) Joint Material. Premolded expansion joint filler strips will conform to ASTM D-1752, type I, or resin impregnated fiberboard conforming to the physical requirements of ASTM D 1752. Contraction joint sealant material will be single component Dow Corning 790, Fed. Spec. TFS-230 or preformed seal. Bond breaker material will be polyethylene tape coated paper or metal foil.

(4) Installation. Either the single component or preformed seal will be per manufacturer's recommendations. If bond breaker is to be replaced, it will be done prior to the installation of the joint seal. Joints will be filled to a depth shown on the as-built drawings in such a manner as to minimize spilling on the concrete surface. Spilled sealing material will be removed immediately and the surface cleaned.

7.6 Stilling Basin Operation and Maintenance

Inspect stilling basin prior to flood season, after each flood event, and at least every 90 days for signs of deterioration of the structure or debris buildup. Debris found during inspections should be removed immediately and repairs made as soon as possible. The basin pool needs to be pumped out in low flow periods.

7.7 Downstream Rock-lined Channel Operation and Maintenance

Maintenance consists of inspection and repair of the riprap slope and channel bottom. If the riprap is damaged, either during the flood or during cleanup, immediate repair is necessary to prevent streambed degradation. Repair of riprap will be done "in the dry" or in non-flowing water.

7.8 Debris Disposal

Debris that collects in debris basins and other portions of the Reed Landing must be cleaned out to allow a suitable amount of stormwater flow capacity and debris collection capacity in the flood control system. Some of the debris, like wood and large rocks, may be recycled or disposed of in a sanitary landfill. However, heavy metals-contaminated debris like tailings and sediment should be disposed of in the Page Repository or other designated repositories.

Section 8.0 Emergency Operations

8.1 General

This part of the manual presents principles and procedures which are particularly applicable during high-water events.

8.2 Procedures to be Followed During a High-Water Event

When high flow is expected to exceed 800 cfs, the superintendent will initiate the following steps:

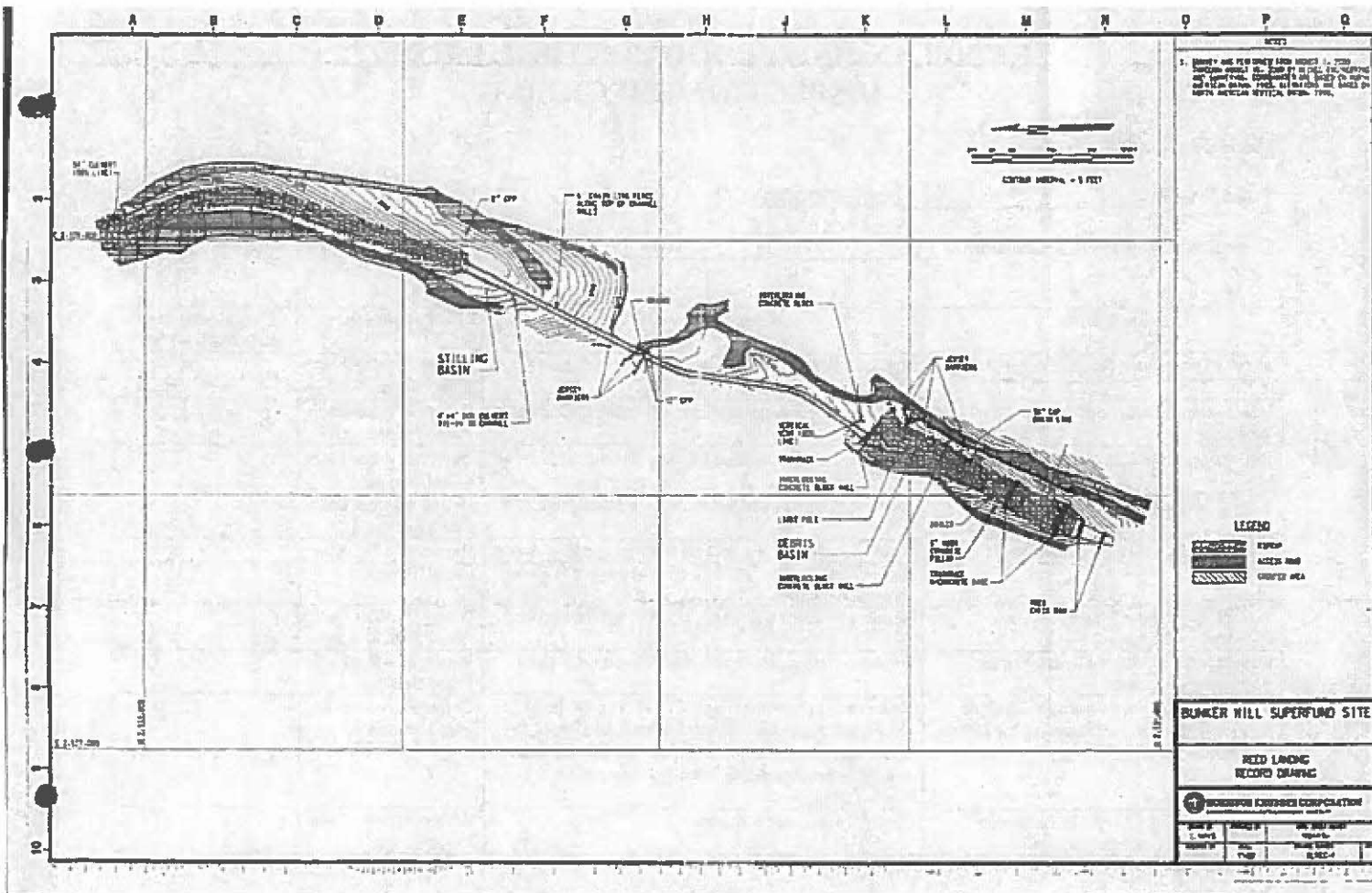
- a. Conduct a 24-hour duty to patrol the project area, making a detailed inspection and record the condition of the project.
- b. Make needed repairs as quickly as possible.

[OD-EM: Any additional input here?]

Section 9.0 Repair, Replacement, and Rehabilitation

Repair is considered to entail those activities of a routine nature that maintain the project in a well-kept condition. Replacement covers those activities taken when a worn-out element or portion thereof is replaced. Rehabilitation refers to a set of activities as necessary to bring a deteriorated project back to its original condition. RR&R actions are to conform to the project as-built plans and specifications. These activities are the responsibility of the local flood control authority, the party who owns, operates, and maintains the Reed Landing flood control project.

Enclosure 1 – As-Built Drawings

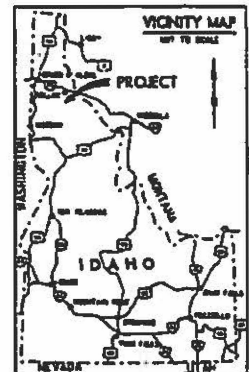




US Army Corps
of Engineers
Seattle District

BUNKER HILL - REED LANDING DRAINAGE ENHANCEMENT

WARDNER, IDAHO



DRAWING INDEX		
SHEET NO.	PLATE NO.	TITLE
1	1	TITLE, AREA MAP, AND DRAWING INDEX
2	2	GENERAL SITE PLAN
3	3	EXISTING BASE PLAN AND SECTION
4	4	EXISTING BASE PLAN AND SECTION
5	5	EXISTING BASE PLAN AND SECTION
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85	85	EXISTING BASE PLAN AND SECTION
86	86	EXISTING BASE PLAN AND SECTION
87	87	EXISTING BASE PLAN AND SECTION
88	88	EXISTING BASE PLAN AND SECTION
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100	100	EXISTING BASE PLAN AND SECTION

100% SUBMITTAL

PN C1799

FY 99

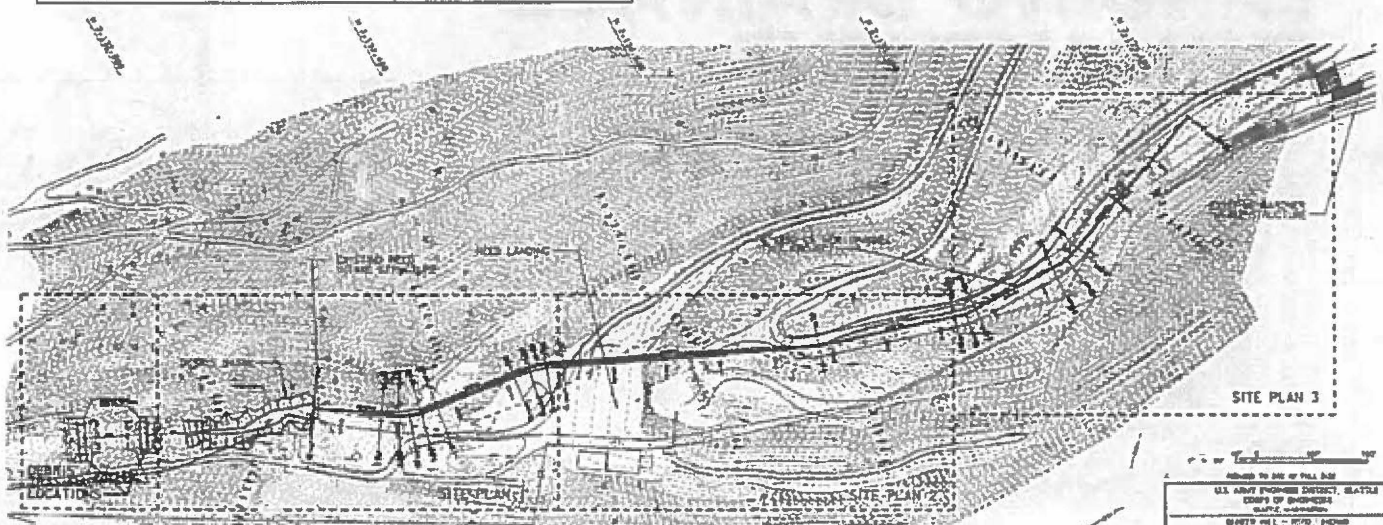
SAFETY PAYS

DESIGNED BY: J. L. HARRIS, P.E.		CHECKED BY: J. L. HARRIS, P.E.	
DRAWN BY: J. L. HARRIS, P.E.		DATE: 10/1/98	
PROJECT: BUNKER HILL - REED LANDING DRAINAGE ENHANCEMENT		SHEET NO. 1 OF 100	
TITLE, AREA MAP, AND DRAWING INDEX		DATE: 10/1/98	
DATE: 10/1/98		DATE: 10/1/98	

CIVIL LEGEND		CIVIL ABBREVIATIONS	
	BUILDING OR STRUCTURE	10	ANGLE
	FENCE	APC	APPROXIMATE
	AC	ALSO	ALSO
	PCE	B.L.G. MARK	BUILDING
	CONTOUR	CL	CERTAIN IMPROVED AREA
	SPOT ELEVATION	CLC	CONCRETE
	VEGETATION	CLM	CLAY TO SPWAL
	GRAVEL ROAD	CLT	CLAY
	POWER POLE	CLV	CLAY
	GRADED SUPPORT	CLW	CLAY
	SWAMP	CLY	CLAY

NOTES

1. NEW CHANNEL AT STATION 3+00
2. CHANNEL TO BE ROCK LINER TRAPEZOIDAL. STATION 3+00 TO 3+50.
3. CONCRETE RECTANGULAR CHANNEL TO BE INSTALLED STATION 3+50 TO 3+60.
4. ALL EXCAVATED MATERIAL DESIGNATED AS TAKE-RITE BY THE CORP SHALL BE TRUCKED TO THE DCA. EXCESS DCA MATERIAL MAY BE USED AS FILL TO EXHAUST CONTAMINATION AREA AS APPROVED BY THE DCA. ALL EXCESS EXCAVATED MATERIAL SHALL BE TRUCKED TO THE DCA.
5. ALL DISTURBED AREAS SHALL BE RESEED PER SPECIFICATIONS.



APPROVED TO DATE OF PULL 3-81	
U.S. ARMY ENGINEER DISTRICT, SEATTLE	
CORPS OF ENGINEERS	
ENGINEER (NAME)	
GENERAL SITE PLAN	
DATE	SCALE
3-81	1" = 100'

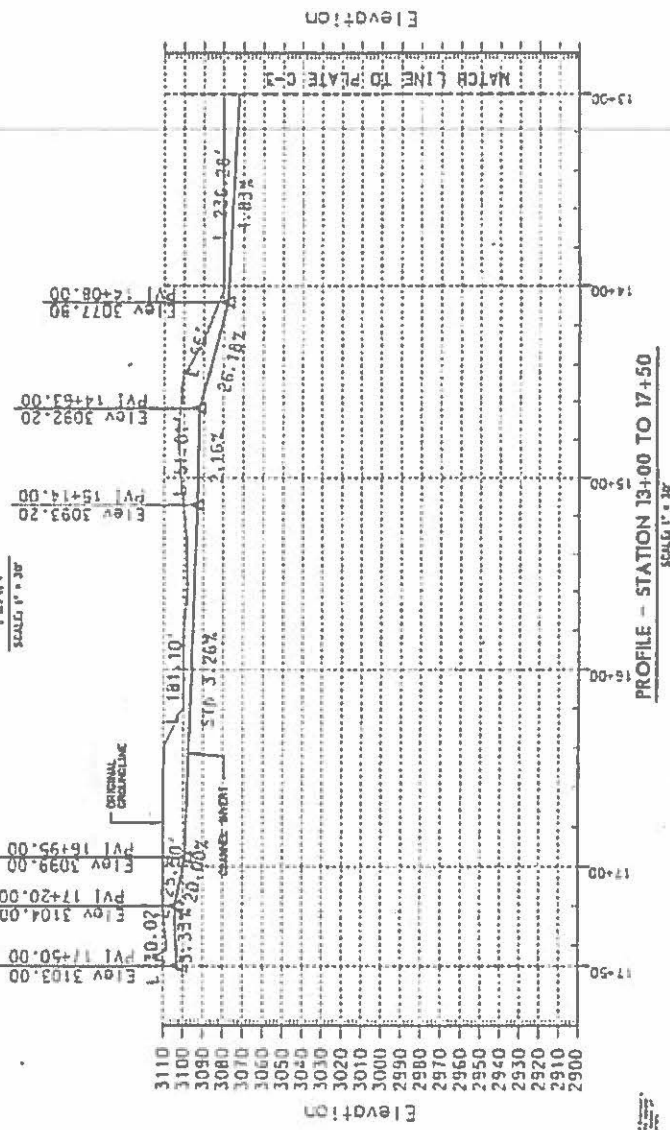
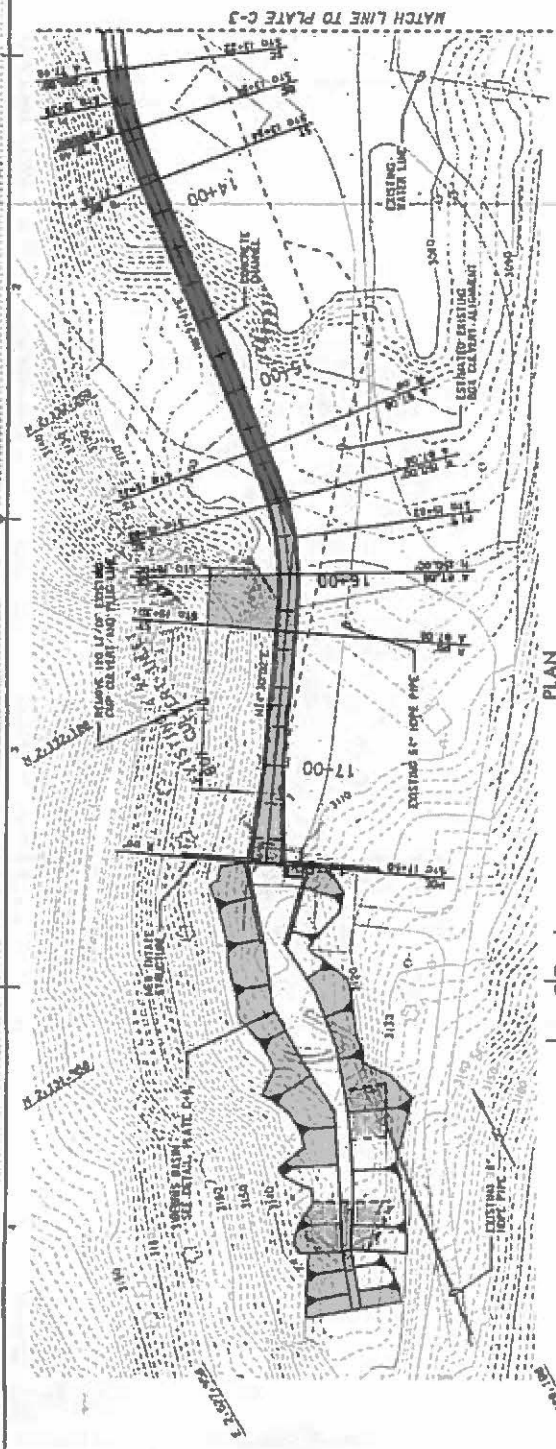
THIS PLAN IS BASED ON THE DATA SUBMITTED BY THE CLIENT AND THE DATA OBTAINED FROM THE FIELD SURVEY. THE ENGINEER HAS NOT CONDUCTED A FIELD SURVEY OF THE AREA AND HAS NOT BEEN ADVISED OF ANY CHANGES TO THE DATA SINCE THE DATE OF THE SURVEY.

DATE AND TIME PLOTTED: 22 OCT 2006 11:11
 PLOTTER: J. L. JONES

DATE	BY	REVISION
11/1/00	WJ	1.0
11/1/00	WJ	1.1
11/1/00	WJ	1.2
11/1/00	WJ	1.3
11/1/00	WJ	1.4
11/1/00	WJ	1.5
11/1/00	WJ	1.6
11/1/00	WJ	1.7
11/1/00	WJ	1.8
11/1/00	WJ	1.9
11/1/00	WJ	2.0

- NOTES:
- EXISTING 54" DWT PIPE SHALL NOT BE DISTURBED. PLACE 54" DWT PIPE IN THE EXISTING TRENCHES SHOWN ON PLATE C-1.
 - FOR ALIGNMENT DATA, SEE TABLE THIS PLATE.

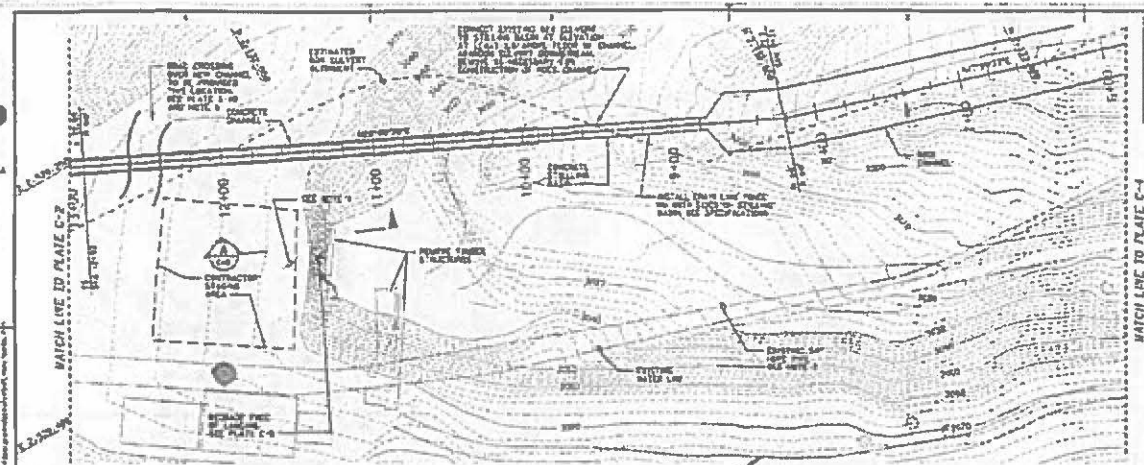
PI	STATIONING	ELEVATION
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PI 1	14+00.00	2,912.40
PI 2	15+00.00	2,912.40
PI 3	16+00.00	2,912.40
PI 4	17+00.00	2,912.40
PI 5	18+00.00	2,912.40
PI 6	19+00.00	2,912.40
PI 7	20+00.00	2,912.40
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PI 9	22+00.00	2,912.40
PI 10	23+00.00	2,912.40



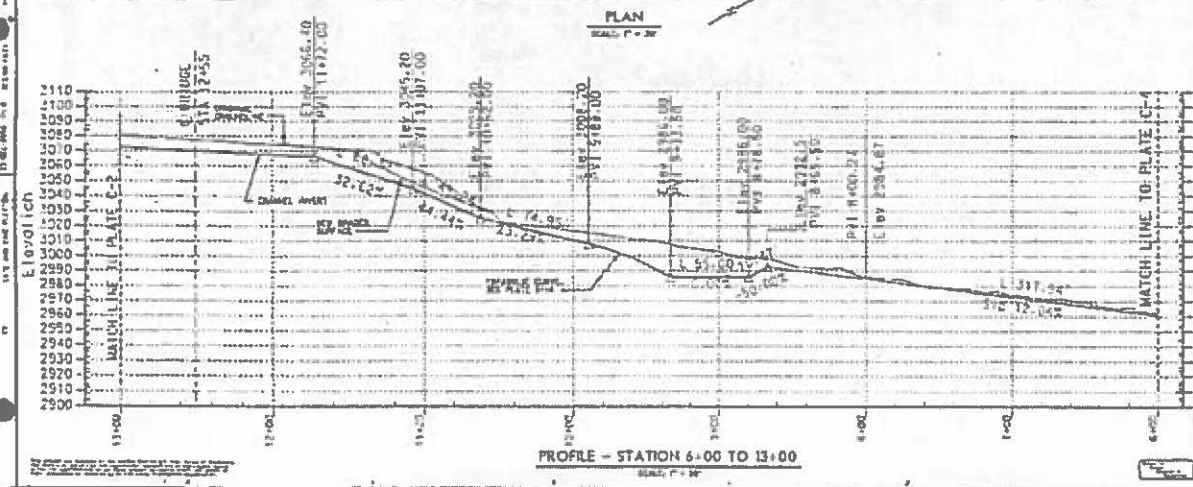
US ARMY ENGINEER DISTRICT, SEATTLE
 DISTRICT OF PACIFIC
 WASHINGTON
 BRACER MILL - MID LANDING
 DRAINAGE DRAINAGE

SITE PLAN 1

DATE	BY	REVISION
11/1/00	WJ	1.0
11/1/00	WJ	1.1
11/1/00	WJ	1.2
11/1/00	WJ	1.3
11/1/00	WJ	1.4
11/1/00	WJ	1.5
11/1/00	WJ	1.6
11/1/00	WJ	1.7
11/1/00	WJ	1.8
11/1/00	WJ	1.9
11/1/00	WJ	2.0

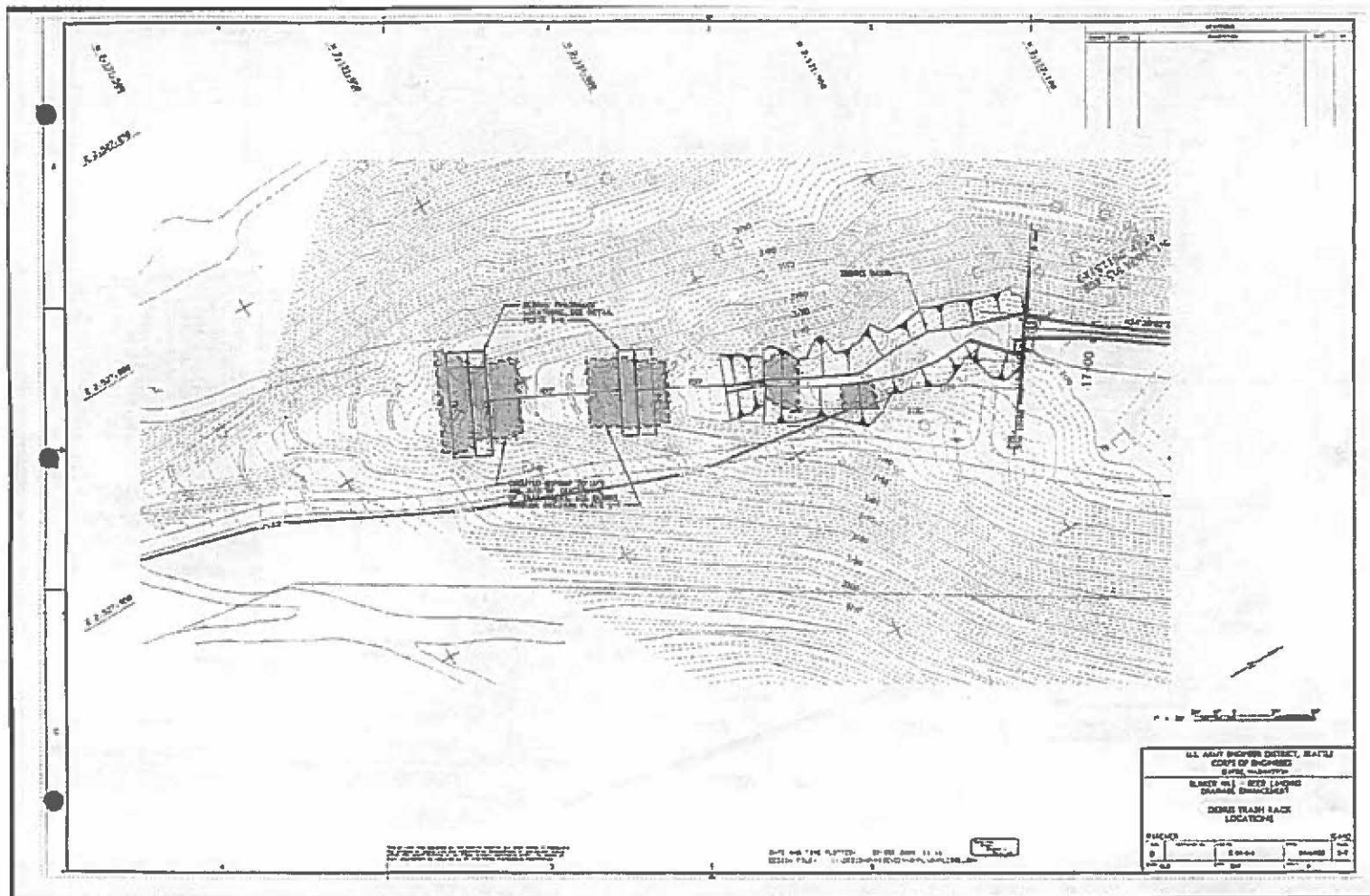


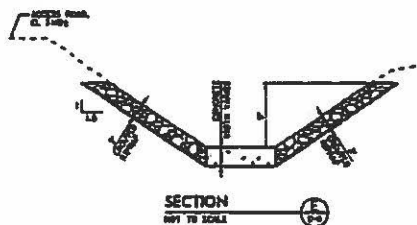
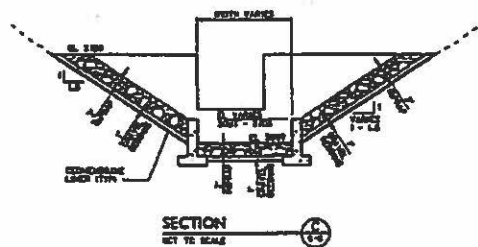
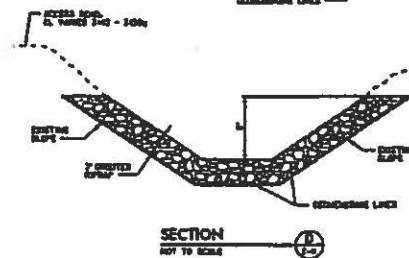
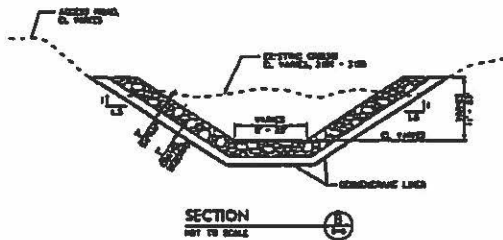
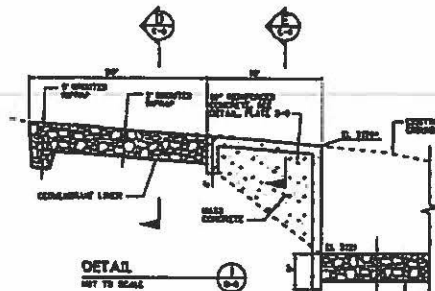
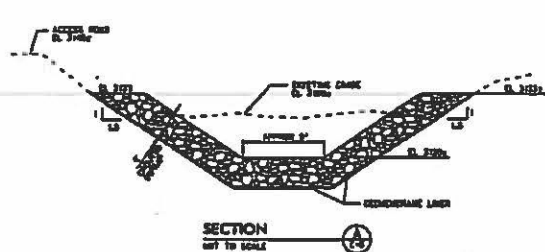
- NOTES:**
1. RELOCATE POWER POLE LEFT TO THE EAST. REPLACE CONDUIT AS NECESSARY TO RELOCATE POLE.
 2. ELEVATION OF EXISTING AND PROPOSED CANAL SHALL BE BASED ON THE PROPOSED CHANNEL. ALL EXISTING CHANNELS SHALL BE REMOVED IF EXCAVATION FOR CHANNEL EXCEEDS THE DRAINAGE.
 3. LOCATION SHOWN FOR BAR PILE IS NOT FINAL. EXISTING, NO EXISTING CHANNELS AVAILABLE TO VERIFY IN PLACE LOCATION.
 4. FOR ALTIMETER DATA SEE PLATE C-2.
 5. EXISTING APPROACH TO CHANNEL. CHANNEL FROM BOTH DIRECTIONS TO ALLOW VEHICLE TRAVEL OVER CHANNEL/ DRAINAGE.



U.S. ARMY ENGINEER DISTRICT, BATTLE
COUNT OF SHEETS: 14
SHEET NO.: 14
DRAWN BY: J. H. L. (J. H. L.)
CHECKED BY: J. H. L. (J. H. L.)
DATE: 10/1/50

DESIGNED BY	DESIGNED BY	DESIGNED BY
D	D	D
DATE	DATE	DATE
10/1/50	10/1/50	10/1/50

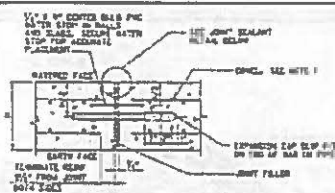


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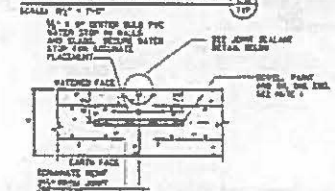
REPORT TO ONE OF THE
SAC, NEW YORK OFFICE, CHIEF, CHIEF
OF THE NEW YORK
OFFICE, NEW YORK
SECTION 4 AND SET 4

ABBREVIATIONS

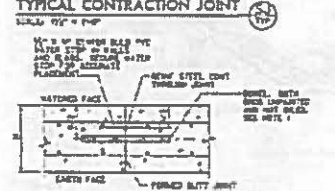
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|-----|-----|--------------------------------|
| 1 | 422 | AMERICAN CEMENTRY INSTITUTE |
| 2 | 423 | AMERICAN INSTITUTE OF STEEL |
| 3 | 424 | CONSTRUCTION |
| 4 | 425 | AMERICAN SOCIETY |
| 5 | 426 | AMERICAN SOCIETY FOR |
| 6 | 427 | TESTING & MATERIALS |
| 7 | 428 | AMERICAN WELDING SOCIETY |
| 8 | 429 | AMERICAN SOCIETY OF MECHANICAL |
| 9 | 430 | ENGINEERS |
| 10 | 431 | AMERICAN SOCIETY OF MECHANICAL |
| 11 | 432 | ENGINEERS |
| 12 | 433 | AMERICAN SOCIETY OF MECHANICAL |
| 13 | 434 | ENGINEERS |
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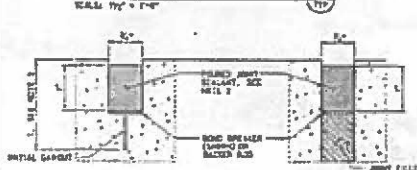
TYPICAL EXPANSION JOINT



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



TYPICAL CONSTRUCTION JOBS





JOINT SEALANT DETAIL


LEGEND

 SECTION ON DETAIL LABEL

 PL. ON ONE SECTION ON DETAIL
IS SHOWN ON NO. 231

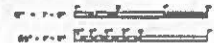
 SECTION ON DETAIL LABEL

 REFERENCE DRAWING ON ONE SECTION
ON DETAIL IS SHOWN ON NO. 231

 FEATURE TO BE SHOWN ON
NO. 231 IS SHOWN ON NO. 231

1. SPONGE TYPE IS SUFFICIENT AND OF EXTRA-STRENGTH PIPE.
SLIT SOMEWHAT DEEPER FOR BLASTING, 1.5 INCHES AND SPACING.
2. PLACE TOP OF SPONGE SLANT 45° TO 60° BELOW NATURAL
FACE OF SOIL, OF 1.5 IN.
3. USE REMOVED SOIL FOR 1.5 INCHES DOWNWARD.
4. PLACE SOIL AT CENTER OF EACH SPONGE SLANT
OF 1.5 IN. TOP AT TOP OF EACH SPONGE SLANT.

SHELL AND TACKLING IN LBS	SHEAL			TOTAL IN LBS
	24 LBS	24.0 LBS	24.0 LBS	
24.0	1.25	24.0	24.0	2.0
24.0	2.0	24.0	24.0	2.5
24.0	2.0	24.0	24.0	2.0
24.0	2.0	24.0	24.0	2.0



U.S. ARMY (CONTINUED) (EXERCISE, BATTLE
COURSE) OF JACOBSON

NOTES, ABBREVIATIONS, LEGEND

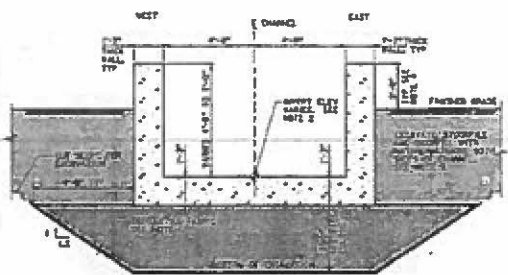
AND TYPICAL JOINT DETAILS
UPPER AND LOWER

3	1-1-1	10000
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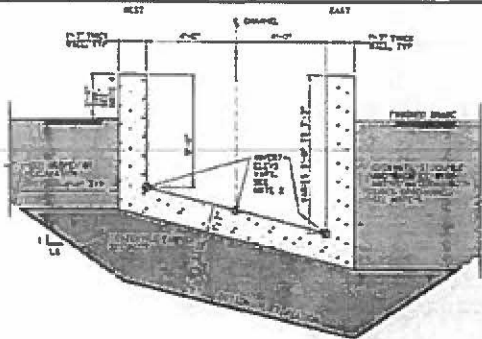
Figure 1 is a line graph illustrating the percentage of the total sample for various age groups over time. The x-axis represents years from 1950 to 2000, with major ticks every 10 years. The y-axis represents the percentage of the total sample, ranging from 0 to 100. The age groups are: 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75+. The graph shows a general trend of decreasing percentages for younger age groups and increasing percentages for older age groups over time.

Year	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
1950	25	15	15	15	15	10	5	5
1960	20	15	15	15	15	10	5	5
1970	15	15	15	15	15	10	5	5
1980	10	15	15	15	15	10	5	5
1990	5	15	15	15	15	10	5	5
2000	5	15	15	15	15	10	5	5

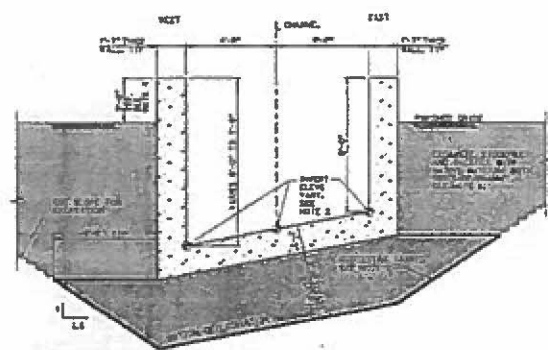
© 2000 Blackwell Science Ltd *Journal of Internal Medicine* 247: 391–397



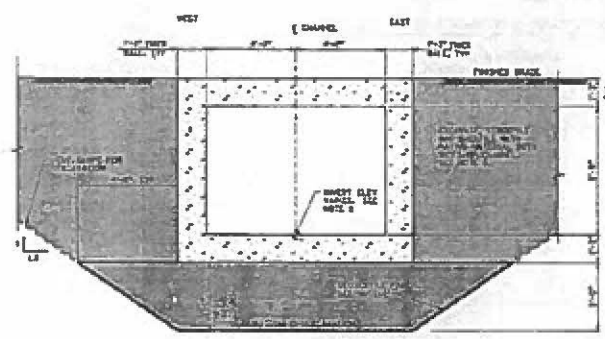
U-SHAPED CHANNEL SECTION
TYPICAL STATIONS 17+00 TO 16+48,
15+16 TO 13+99, 12+77 TO 12+65
AND 12+45 TO 9+89
 SCALE 1/4" = 1'-0"



SUPERELEVATED CHANNEL SECTION
TYPICAL STATION 13+99 TO 12+77
 SCALE 1/4" = 1'-0"



SUPERELEVATED CHANNEL SECTION
TYPICAL STATION 16+48 TO 15+16
 SCALE 1/4" = 1'-0"



BRIDGE SECTION TYPICAL
STATION 12+85 TO 12+45
 SCALE 1/4" = 1'-0"

NO.	DESCRIPTION	DATE

- NOTES**
1. EXTEND CONCRETE FACING AREA SECTION OF FOOTING ON ALL PILES. BRIDGE TO BACK FILLING WITH WHITE WELLS. LET FACING BACK ON APPROACHES, 5' FROM TOP OF W.P.
 2. ALL TYPICAL CHANNEL SECTIONS ARE SHOWN LEAVING SUPERSTRADE. SEE PLATE 2-4 FOR BRIDGE ELEVATIONS AND REINFORCEMENT DETAILS.
 3. CHANNEL BENTHES BENTHES ARE WEARWAYS AT BRIDGE ELEVATIONS. BENTHES ALL OTHER CHANNEL WALLS AT APPROACHES FOR FIRST 10' FROM BRIDGE ELEVATIONS SHALL BE PLATE 2-4.
 4. ALBERT FIRM FINISHED BRIDGE IS REQUIRED TO MEET FACING SLOPE REQUIREMENTS. CHANNELS 3' AND FINISHED BRIDGE IS A MINIMUM OF 1'-0" FROM BRIDGE TOP OF CHANNEL WALLS, EXCEPT AT BRIDGE APPROACHES.
 5. CEMENTATE BRIDGE MATERIALS WITH BRIDGE CHANNEL AND W.P. BASE CHANNEL FROM AND THROUGHOUT TO CH.

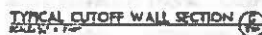
1/4" = 1'-0" (SEE SCALE BAR)

U.S. ARMY ENGINEER DISTRICT, BATTLE CREEK, MICHIGAN
 BRIDGE UNIT, 1000 EAST LANSING
 (BRIDGE UNIT, 1000 EAST LANSING)

TYPICAL SECTION 1

UPPER HALF CROSS

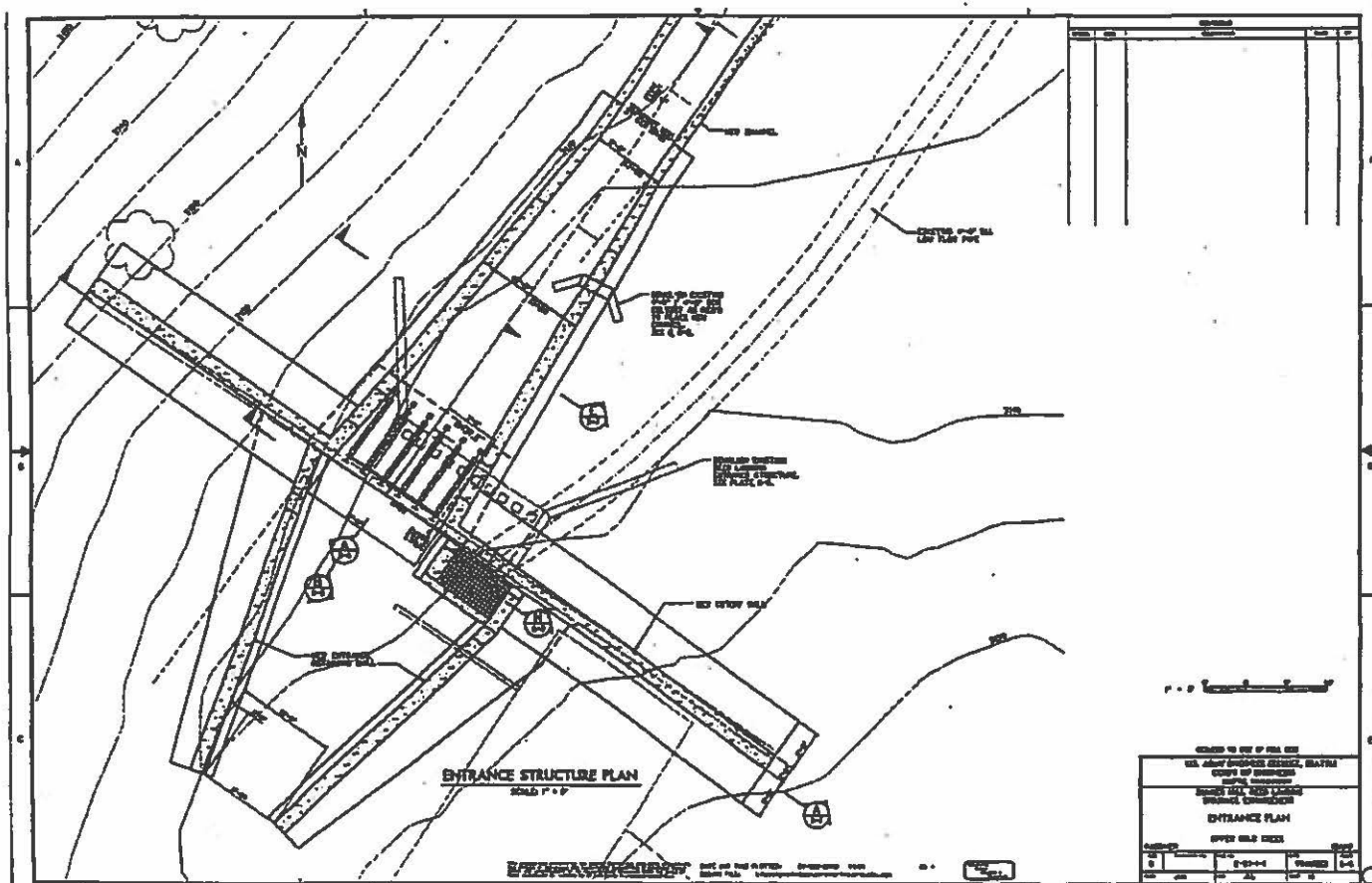
NO.	DESCRIPTION	DATE

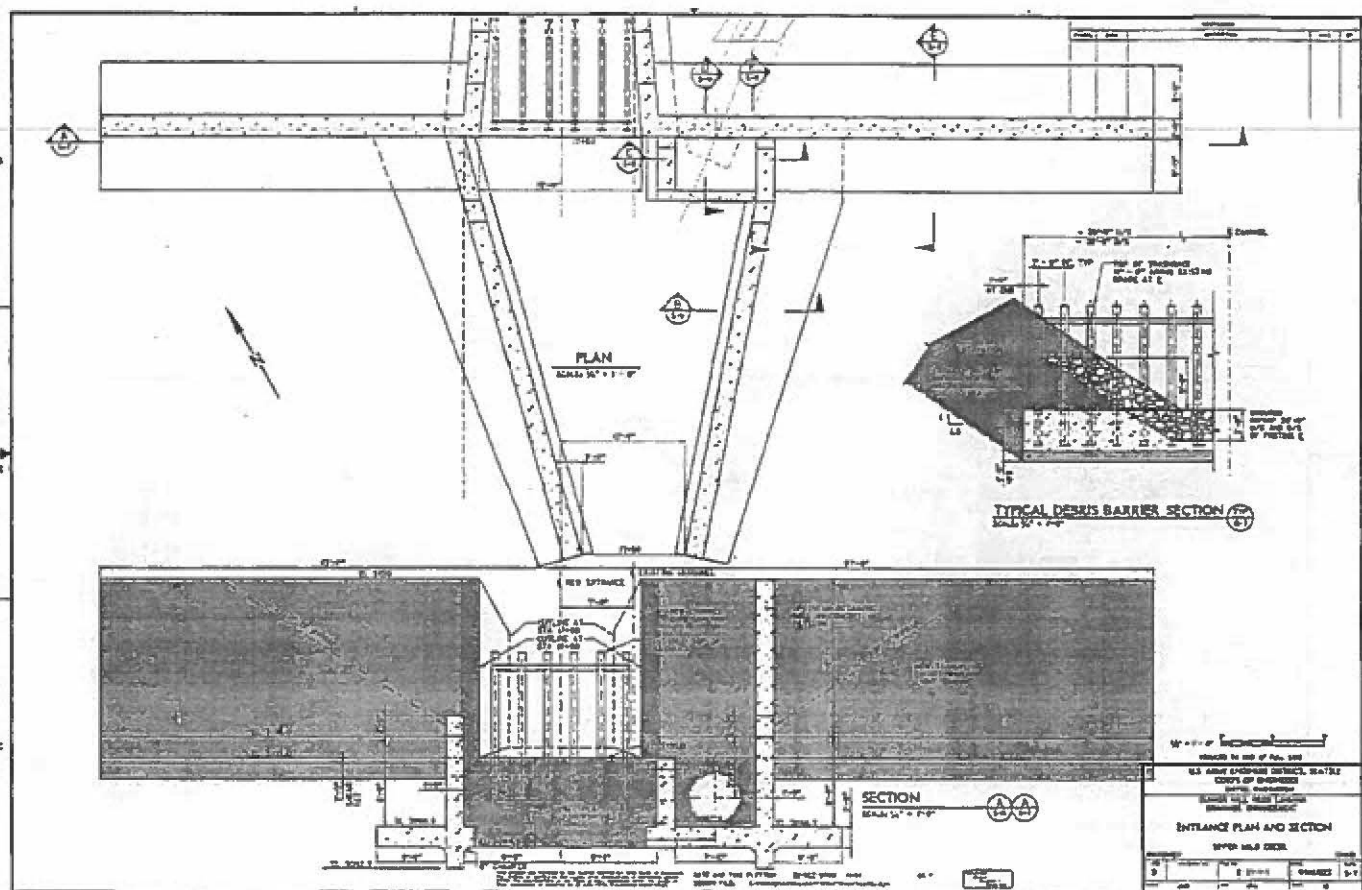


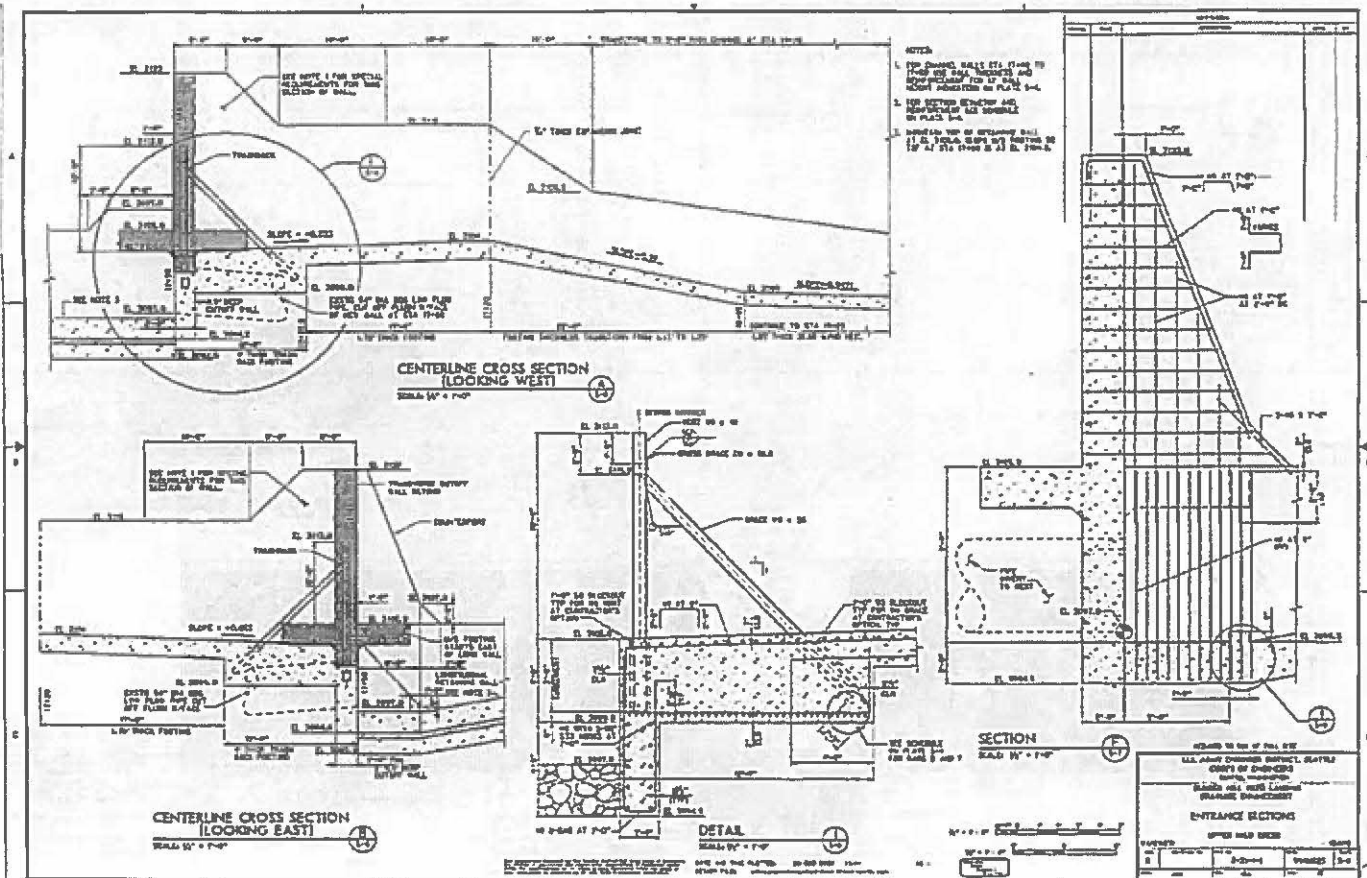
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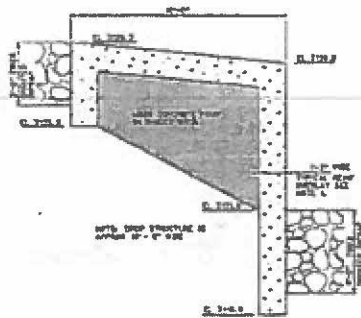
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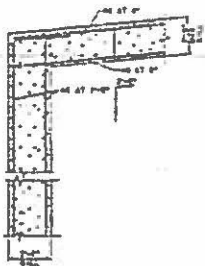






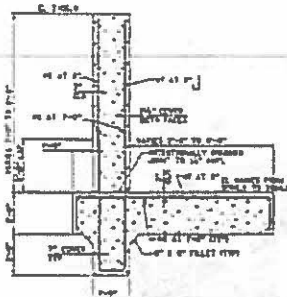
DROP STRUCTURE TYPICAL SECTION

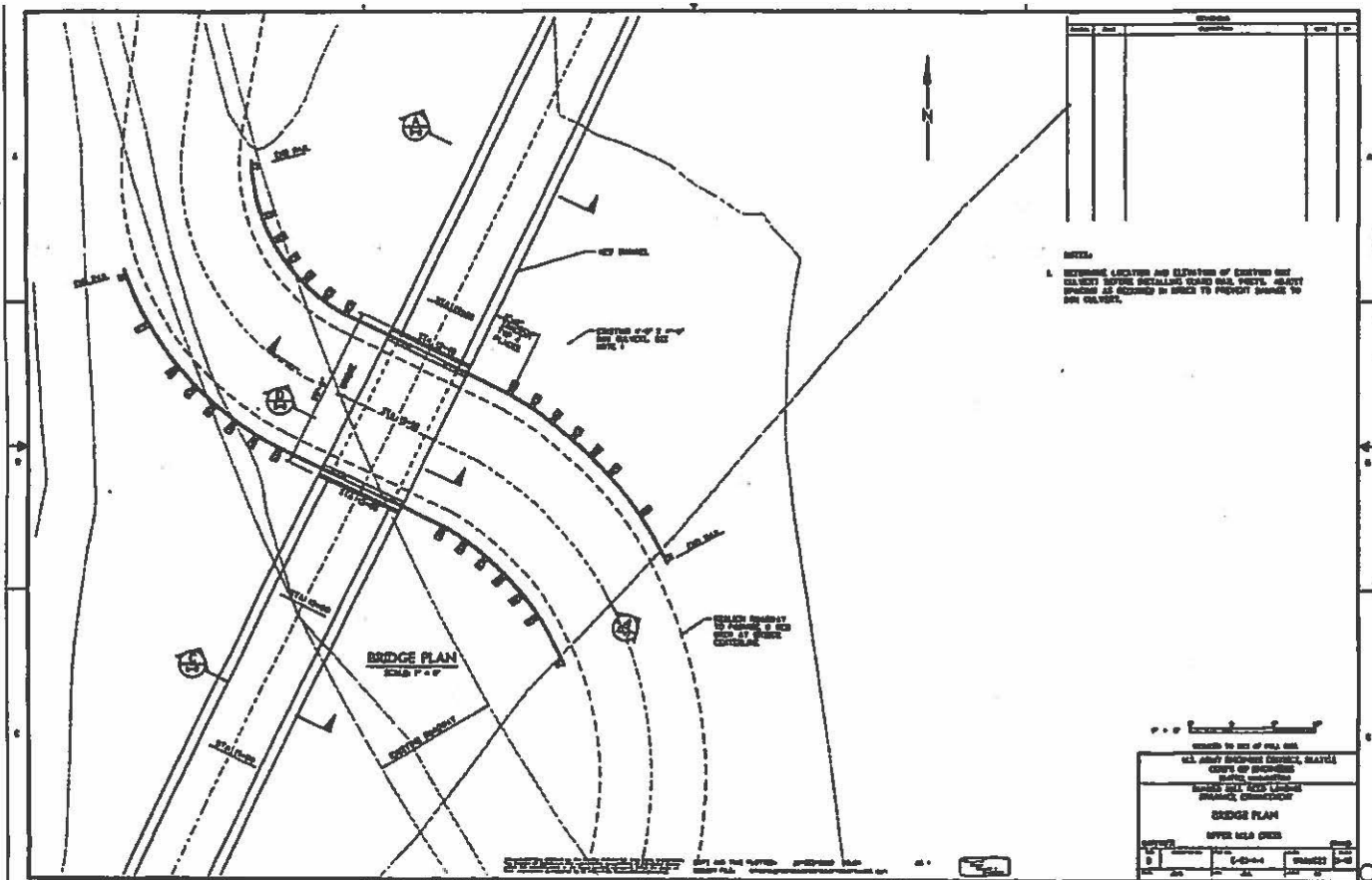
SCALE 1/4" = 1'-0"

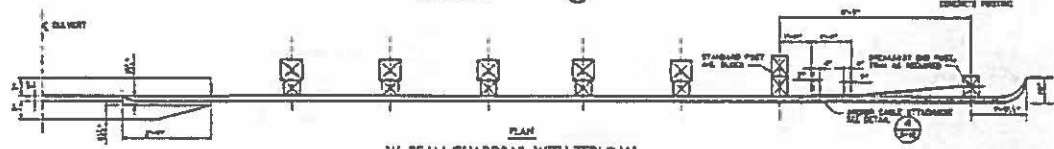
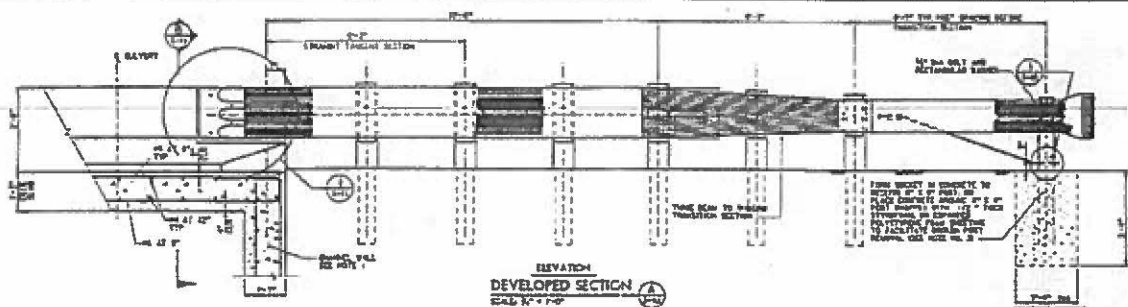


SECTIONAL PLAN AT CUTOFF WALL

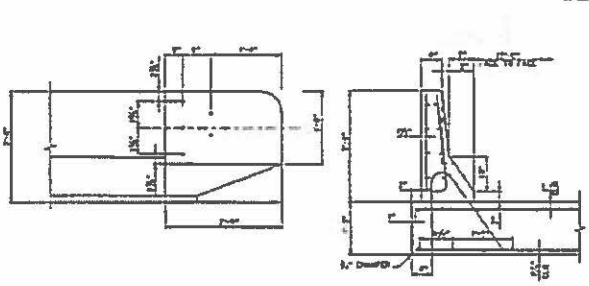
SCALE 1/4" = 1'-0"



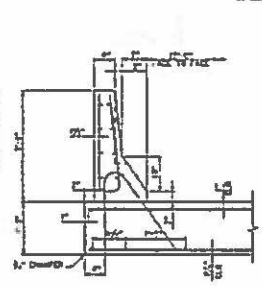




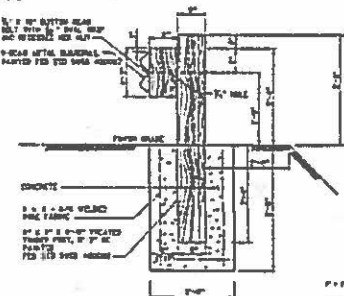
W-BEAM GUARDRAIL WITH TERMINAL
Scale: 1/4" = 1'-0"



DETAIL
Scale: 1/4" = 1'-0"



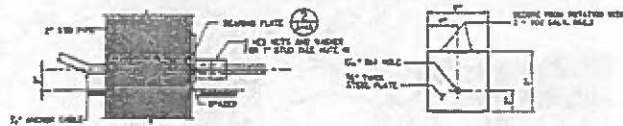
SECTION
Scale: 1/4" = 1'-0"



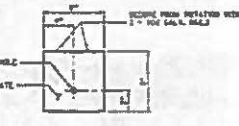
POST AND GUARDRAIL SECTION
Scale: 1/4" = 1'-0"

- NOTES**
1. USE PLATE 3-4 FOR CHANNEL, RAIL AND RAIL END REINFORCEMENT.
 2. ALL GUARDRAIL POST HARDWARE AND ACCESSORIES SHALL BE BALANCED TO ACCORDANCE WITH AASHTO AND ALSO ALL STEEL IS STANDARD RAIL.
 3. 12" x 12" CONCRETE POSTING SHALL BE USED. POSTING SHALL BE FILLING THE SPACES LESS THAN 12" FROM FACE OF RAIL.
 4. GUARDRAIL POSTS SHALL BE PLACED AND SET VERTICALLY. POST SPACING SHALL BE 12" ON CENTER.
 5. GUARDRAIL POST SHALL BE TYPICAL ALMOST RAIL BUT A MINIMUM OF 12" FROM RAIL.
 6. FOR SECTION OF GUARDRAIL TERMINAL TYPE 1 AND SECTION GUARDRAIL, SECTION 12" FROM TERMINAL SHALL BE USED.

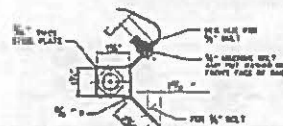
Sheet No.	1 of 1
Project No.	100-100
Section No.	100-100
Scale	1/4" = 1'-0"
Drawn by	100-100
Checked by	100-100
Approved by	100-100
Date	100-100



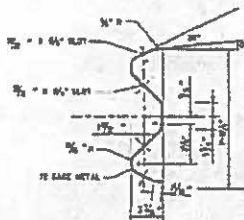
DETAIL
NOT TO SCALE (1)



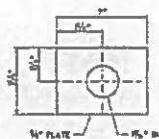
BEARING PLATE DETAIL
NOT TO SCALE (2)



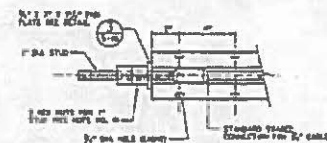
LONGITUDINAL VIEW
AND PLAN, SHOWN



RAIL SECTION
NOT TO SCALE (A)

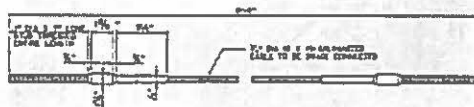


END PLATE DETAIL
NOT TO SCALE (3)



ELEVATION
SHOWN ONE SHOWN

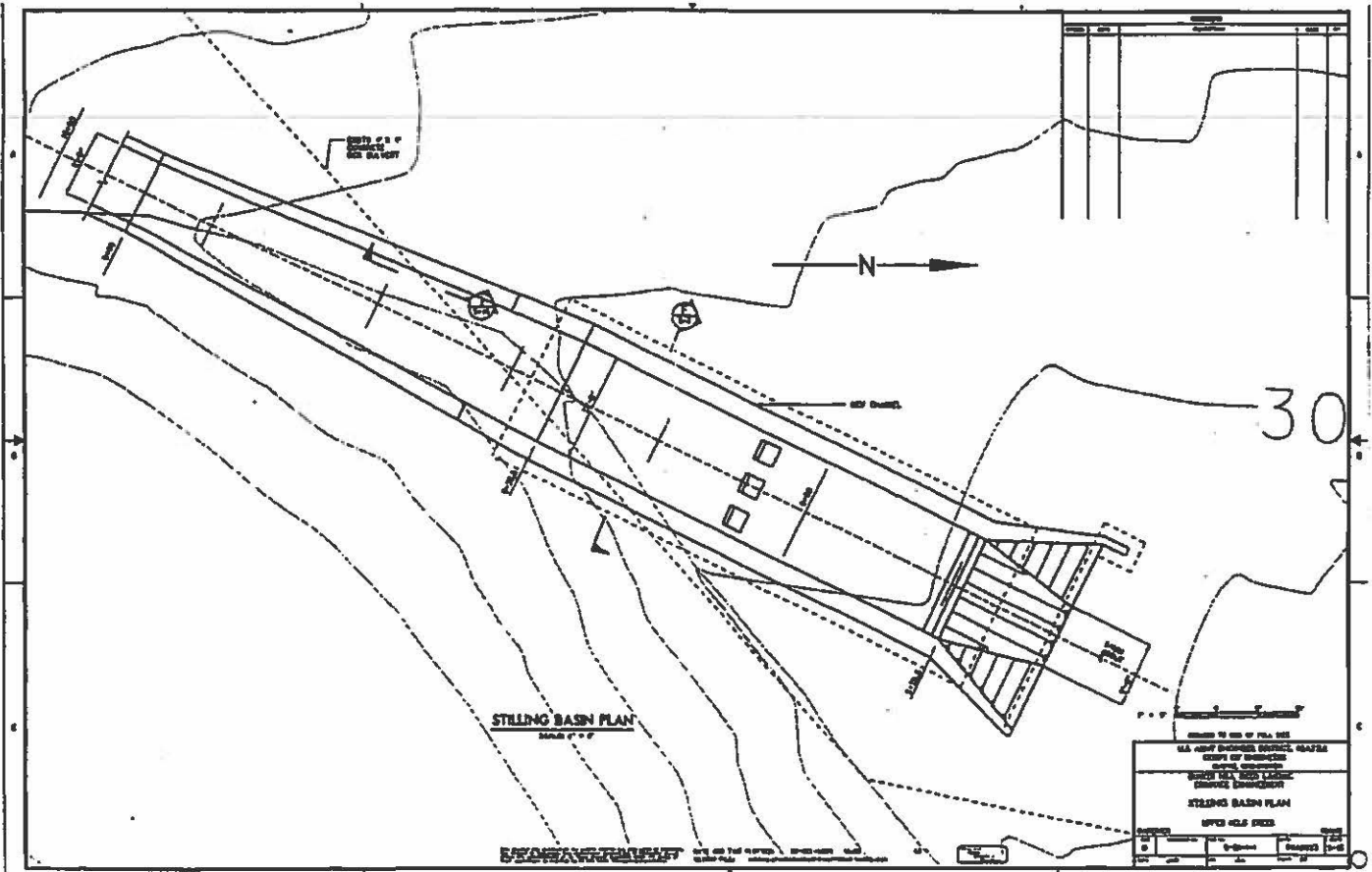
ANCHOR CABLE
ATTACHMENT DETAIL
NOT TO SCALE (4)

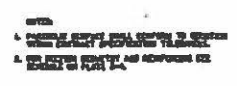


ANCHOR CABLE DETAIL
NOT TO SCALE (5)

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DESIGNED TO USE OF RAIL USE			
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CHECKED BY: [Signature]			
QUALITY CONTROL SECTION AND DETAILS			
OFFICE FILE NO. [Number]			
DATE	BY	DATE	BY
10-10-80	[Signature]	10-10-80	[Signature]





TO END OF TAIL GATE

ALL ABOUT SWIMMING (BATHING, BATHS)

CROSS OF SWIMMING

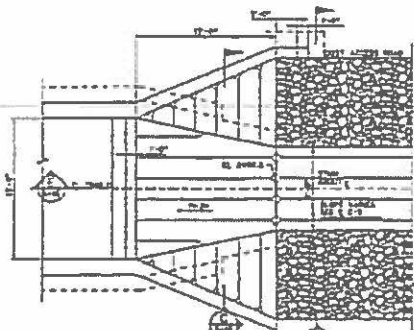
SWIMMING BATHING

SWIMMING BATH BATHING

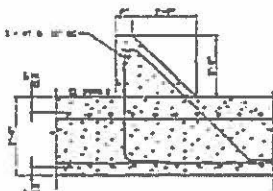
STILLING BATH PLAN AND SECTION

UPPER FLOOR PLAN

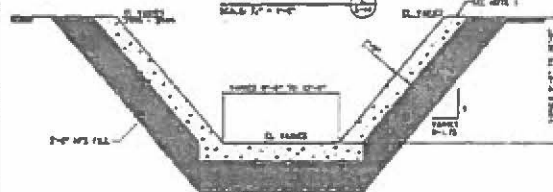
TO END OF TAIL GATE



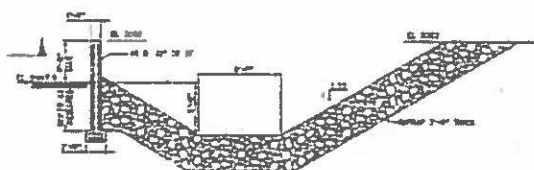
EXIT PLAN
SCALE 1/4" = 1'-0"



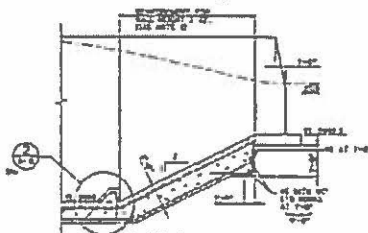
DETAIL
SCALE 1/4" = 1'-0"



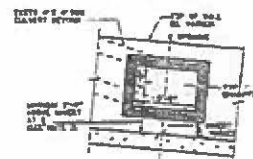
SECTION
SCALE 1/4" = 1'-0"



SECTION
SCALE 1/4" = 1'-0"



SECTION
SCALE 1/4" = 1'-0"



BOX CULVERT
INTERSECTION DETAIL
SCALE 1/4" = 1'-0"

- NOTES:
1. SEE SCHEDULE ON PLATE 1-4 FOR REINFORCEMENT.
 2. SEE SPECIFICATIONS SECTION 2075 FOR ROADS AND RAILROADS FOR JOINTS, JOINTS, JOINTS, JOINTS.
 3. THE ELEVATION OF THE TOP OF THE CULVERT AT THE INTERSECTION OF THE CULVERT WITH A ROAD, RAILROAD, OR OTHER STRUCTURE IS TO BE THE ELEVATION OF THE TOP OF THE CULVERT AT THE INTERSECTION OF THE CULVERT WITH THE ROAD, RAILROAD, OR OTHER STRUCTURE.

W = 1'-0" SECTION
FOOTED TO ONE OF FULL WIDE

U.S. ARMY ENGINEERING DISTRICT, BATTLE
CAMP, OKLAHOMA
DESIGN NO. 1-4-42

EXIT PLAN, SECTIONS AND DETAILS

UPPER HALF CROSS			
NO.	SECTION	SCALE	DATE
1	1-4-42	1/4" = 1'-0"	1-4-42
2	1-4-42	1/4" = 1'-0"	1-4-42

Enclosure 2 - Inspection Checklist:

REED LANDING FLOOD CONTROL PROJECT INSPECTION CHECKLIST

Circle One: Before After

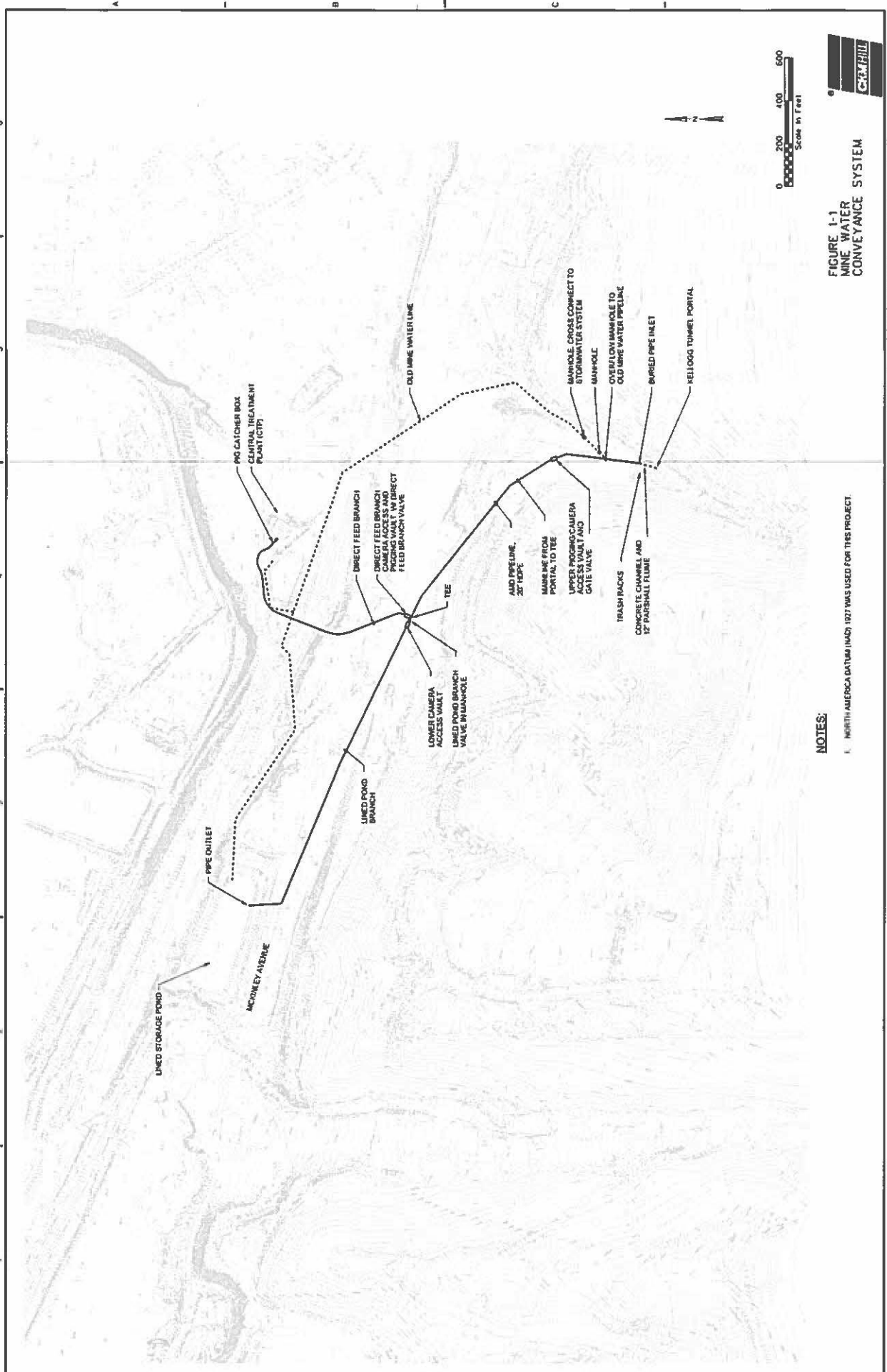
Flood Season: _____ (e.g., 2000-2001)

Completed By (Name, Organization): _____

Inspection	Remedy (if needed)	Frequency	Completion Date (DD-MM-YYYY)
Inspect Two Upper Trashracks for Debris	Remove debris as needed to allow unobstructed flow.	Before & After Each Flood Season	
Inspect Intake Structure Trashrack for Debris	Remove debris as needed to allow unobstructed flow.	Before & After Each Flood Season	
Inspect Concrete Channel for Debris	Remove debris as needed to allow unobstructed flow.	Before & After Each Flood Season	
Inspect Stilling Basin for Debris	Remove debris as needed to allow unobstructed flow.	Before & After Each Flood Season	
Inspect Stilling Basin for Sediment	Remove sediment if available freeboard is less than that needed to allow the 800 cfs flood event to flow through the basin.	Before & After Each Flood Season	
Inspect Two Upper Trashracks for Corrosion or Damage	Repair or replace trashracks if not structurally sound.	Before & After Each Flood Season	
Inspect Intake Structure Trashrack for Corrosion or Damage	Repair or replace trashrack if not structurally sound.	Before & After Each Flood Season	
Inspect Chain Link Fabric and Concrete Blocks West of Intake Structure for Debris Buildup and Damage	Remove debris (sloughing soil) as needed to prevent debris buildup behind blocks higher than 50% of the uphill side block height. Repair or replace fabric as needed to prevent debris from entering the flood control structure.	Before & After Each Flood Season	
Inspect 4x4 Box Culvert at Southwest Portion of the Concrete Channel	Clear of debris as necessary.	Before & After Each Flood Season	

Note: See Chapter 7 of O&MM for more inspection details.

Appendix 5



NOTES:

1. NORTH AMERICA DATUM (NAD) 1927 WAS USED FOR THIS PROJECT.

**FIGURE 1-1
MINE WATER
CONVEYANCE SYSTEM**

NOV-11-2012 FILE NAME: BOWEN-001.dwg 10:49:12 10/01/13

